					DEPARTMENT	T OF NAT	F UTAH TURAL RESO GAS AND M				AMEN	FO DED REPOR	RM 3	
		AF	PLICATION F	OR P	ERMIT TO DRILL					1. WELL NAME and N		2-104BS		
2. TYPE O	F WORK	DRILL NEW WELL	REENTE	R P&A	WELL DEEPEN	WELL	_ 3. FIELD OR WILDCAT							
4. TYPE O	F WELL				d Methane Well: NO		~			5. UNIT or COMMUNI	TIZATION NATURAL		ENT NAM	1E
6. NAME C	F OPERATOR									7. OPERATOR PHONE				
8. ADDRES	SS OF OPERATO	OR			AS ONSHORE, L.P.					9. OPERATOR E-MAIL				
10. MINER	AL LEASE NUM		P.O. Box 1737		nver, CO, 80217  I1. MINERAL OWNERS	SHIP				julie.ja		anadarko	com	
		UTU-011336			FEDERAL IND	DIAN 🔵	STATE	) FEE		-	DIAN 🦲	STATE	~	EE 🔾
13. NAME	OF SURFACE	OWNER (if box 12 :	= 'fee')							14. SURFACE OWNER	R PHONE	(if box 12	= 'fee')	
15. ADDR	ESS OF SURFA	CE OWNER (if box	12 = 'fee')						16. SURFACE OWNER	R E-MAIL	. (if box 12	= 'fee')		
	N ALLOTTEE OI	R TRIBE NAME			18. INTEND TO COMM		PRODUCTION	FROM		19. SLANT				
(if box 12	= 'INDIAN')				error .		ling Applicati	on) NO [	)	VERTICAL DIF	RECTION	AL 📵 H	IORIZON	AL 🔵
20. LOC	TION OF WELL			FOO	TAGES	QT	R-QTR	SECTI	ION	TOWNSHIP	R	ANGE	МЕ	RIDIAN
LOCATIO	N AT SURFACE		18	38 FSL	2234 FEL	N	NWSE	1		10.0 S	2:	2.0 E		S
Top of U	ppermost Prod	ucing Zone	4	17 FSL	1804 FEL	S	SWSE	1		10.0 S	2:	2.0 E		S
At Total	Depth		4	17 FSL	1804 FEL	s	SWSE	1		10.0 S	2:	2.0 E		S
21. COUN	TY	UINTAH		2	22. DISTANCE TO NEA	REST LE		eet)		23. NUMBER OF ACRI		ILLING UN 23	ΙΤ	
					25. DISTANCE TO NEA Applied For Drilling		oleted)	POOL		26. PROPOSED DEPTI		TVD: 842	7	
27. ELEV	ATION - GROUN	D LEVEL		2	28. BOND NUMBER					29. SOURCE OF DRILL WATER RIGHTS APPR			PPI ICAR	ı F
		5083				WYB00	000291					3496		
String	Hole Size	Casing Size	Length	Weig	Hole, Casing		ement Info			Cement		Sacks	Yield	Weight
Surf	12.25	8.625	0 - 2130	28.			0.2			Type V		180	1.15	15.8
										Class G		270	1.15	15.8
Prod	7.875	4.5	0 - 8716	11.	.6 I-80 LT8	&C	12.	5	Prer	nium Lite High Strer	ngth	270	3.38	11.0
										50/50 Poz		1220	1.31	14.3
					А	TTACH	IMENTS							
	VER	IFY THE FOLLO	WING ARE A	TACH	HED IN ACCORDAN	ICE WIT	TH THE UTA	AH OIL AN	D GAS	CONSERVATION G	ENERA	L RULES		
<b>w</b> w	ELL PLAT OR M	AP PREPARED BY I	LICENSED SUR	/EYOR	OR ENGINEER		<b>№</b> сом	PLETE DRIL	LING P	LAN				
AF	FIDAVIT OF STA	TUS OF SURFACE	OWNER AGREE	MENT	(IF FEE SURFACE)		FORM	15. IF OPER	ATOR I	S OTHER THAN THE LE	EASE OW	/NER		
<b>☑</b> DIF	RECTIONAL SUI	RVEY PLAN (IF DIR	ECTIONALLY O	RIZONTALLY DRILLED	торо	GRAPHICA	L MAP							
NAME Gina Becker TITLE Regulatory Analyst II PHONE 720 929-6086														
SIGNATU	RE			D	ATE 02/03/2012				EMAIL	gina.becker@anadark	o.com			
	BER ASSIGNED 047523670	0000		A	PPROVAL				Bo	oogill				
									Pern	nit Manager				

NBU 1022-1J Pad Drilling Program
1 of 7

### Kerr-McGee Oil & Gas Onshore. L.P.

### NBU 1022-1O4BS

Surface: 1838 FSL / 2234 FEL NWSE BHL: 417 FSL / 1804 FEL SWSE

Section 1 T10S R22E

Uintah County, Utah Mineral Lease: UTU-011336

### **ONSHORE ORDER NO. 1**

### **DRILLING PROGRAM**

## 1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
uirita	0 - Surface	
Green River	1055	
Birds Nest	1320	Water
Mahogany	1682	Water
Wasatch	4072	Gas
Mesaverde	6260	Gas
MVU2	7216	Gas
MVL1	7790	Gas
TVD	8427	
TD	8716	

### 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

### 4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

## 5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

### 6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

NBU 1022-1J Pad Drilling Program 2 of 7

### 7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at 8427' TVD, approximately equals 5,393 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,528 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

### 8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

### 9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

### **Background**

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

NBU 1022-1J Pad Drilling Program
3 of 7

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

### **Variance for Mud Material Requirements**

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

### Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KM well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 1022-1J Pad Drilling Program
4 of 7

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

### Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

#### Conclusion

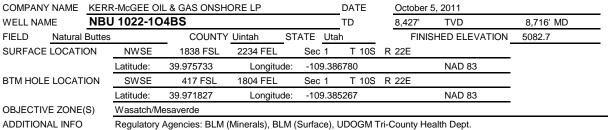
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

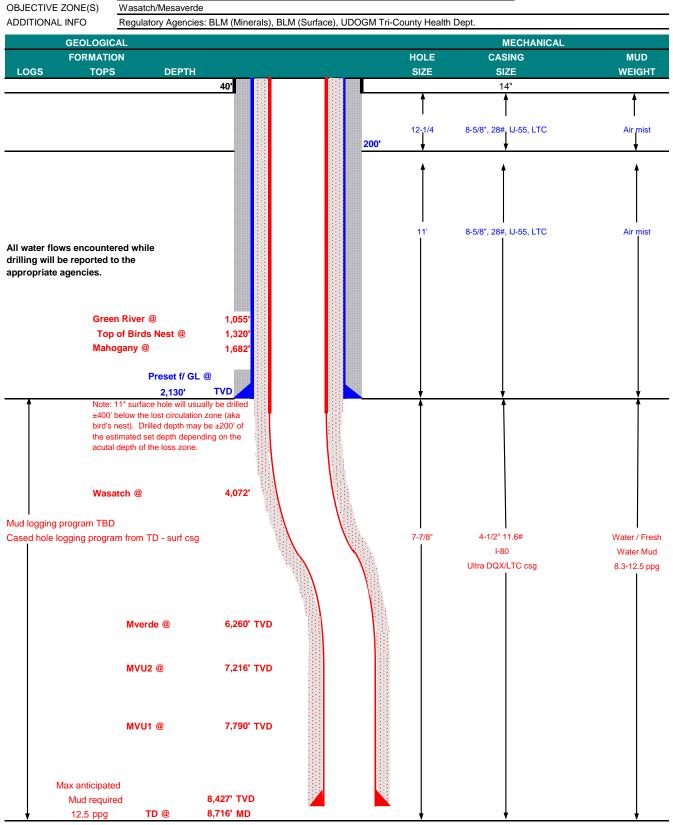
### 10. <u>Other Information:</u>

Please refer to the attached Drilling Program.



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM







### KERR-McGEE OIL & GAS ONSHORE LP

### **DRILLING PROGRAM**

CASING PROGRAM	<u>1</u>	DESIGN FACTORS									
										LTC	DQX
	SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLLA	PSE	TENSION
CONDUCTOR	14"	0	-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,130	28.00	IJ-55	LTC	2.54	1.89	6.66	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.16		3.26
	4-1/2"	5,000	to	8,716'	11.60	I-80	LTC	1.11	1.16	6.39	

**Surface Casing:** 

12.5 0.73 psi/ft = frac gradient @ surface shoe (Burst Assumptions: TD = ppg)

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

#### **CEMENT PROGRAM**

Ī	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	łT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water	to surface,	option 2 will	be utilized		
Option 2 LEAD	1,630'	65/35 Poz + 6% Gel + 10 pps gilsonite	150	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	3,566'	Premium Lite II +0.25 pps	270	20%	11.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	5,150'	50/50 Poz/G + 10% salt + 2% gel	1,220	35%	14.30		1.31
		+ 0.1% R-3					

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

**PRODUCTION** 

Float shoe, 1 jt, float collar. No centralizers will be used.

### **ADDITIONAL INFORMATION**

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

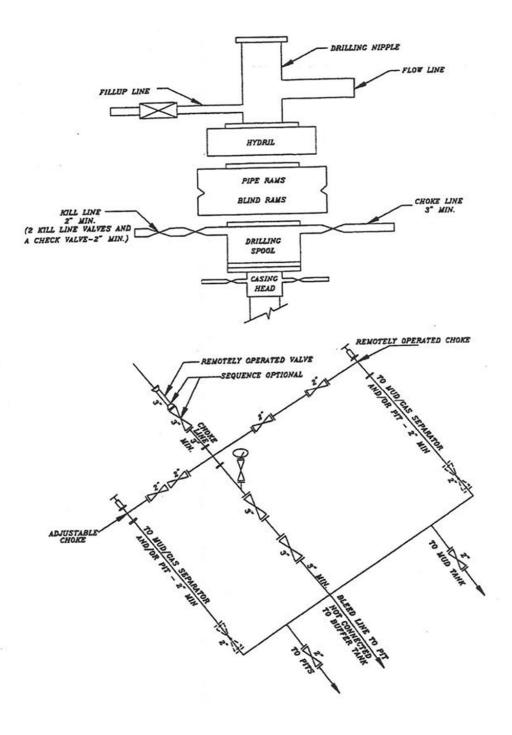
Kenny Gathings / Lovel Young

DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Chad Loesel	•	
DRILLING SUPERINTENDENT:		DATE:	

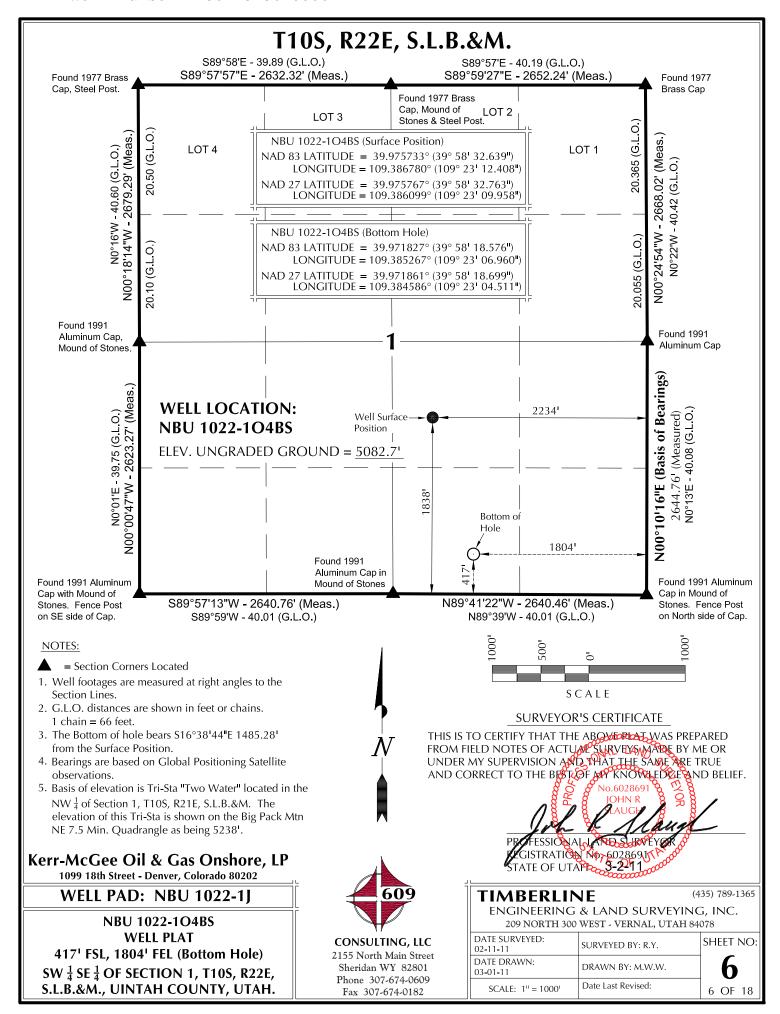
NBU 1022-1J Pad- Drilling Program Approved-100511.xlsx RECEIVED: February 02, 2012

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A NBU 1022-104BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



M/FI			SURFACE POS		ı					BOTTOM HOLE		
WELL NAME	NA LATITUDE	D83 LONGITU	DE LATITUI	NAD27	ITUDE	FOOTAGES	LATIT	NAE	083 LONGITUDE	LATITUDE	1000 LONGITUDE	EOOTACES
NBU	39°58'33.126"				09.854"	1887' FSL	39°58'3		109°23'06.900'		109°23'04.450"	2410' FSL
1022-1J1BS	39.975868°	109.386751	939.97590	3° 109.386	5071°	2226¹ FEL	39.9772	296°	109.385250°	39.977331°	109.384570°	1807' FEL
NBU 1022-1J1CS	39°58'33.029" 39.975841°	1.00 -0		103 23		1877' FSL	39°58'3 39.9763		109°23'06.917'	39°58'35.110" 39.976419°	109°23'04.467"	2078' FSL
NBU	39°58'32.931"	109.386757 109°23'12.3				2227' FEL 1867' FSL	39.9763 39°58'3		109.385255° 109°23'07.138'		109.384574° 109°23'04.688"	1807' FEL 1761' FSL
1022-1J4BS	39.975814°	109.386763	99.97584	8° 109.386	5082°	2229¹ FEL	39.975	516°	109.385316°	39.975550°	109.384636°	1823¹ FEL
NBU 1022-1J4CS	39°58'32.834"   39.975787°	109°23'12.3 109.386769				1857' FSL 2231' FEL	39°58'2 39.974!		109°23'06.924' 109.385257°	39°58'28.540" 39.974594°	109°23'04.474" 109.384576°	1413' FSL 1805' FEL
NBU	39°58'32.736"	109°23'12.3	39°58'32.	859" 109°23	09.937"	1847' FSL	39°58'2	25.136"	109°23'06.940'	39°58'25.260"	109°23'04.491"	1081' FSL
1022-1O1BS NBU	39.975760° 39°58'32.639"	109.386774 109°23'12.4			5094° '09.958"	2232 FEL 1838 FSL	39.9730 39°58'1		109.385261° 109°23'06.960'	39.973683° 39°58'18.699"	109.384581° 109°23'04.511"	1805' FEL 417' FSL
1022-1O4BS	39.975733°	109.386780				2234' FEL	39.9718		109.385267°	39.971861°	109.384586°	1804' FEL
				IVE COORD								
NBU NAME	NORTH	EAST	WELL NAME NBU	NORTH	EAS	NIDII	NAME	NOR		NBU WELL NAM		EAST
1022-1J1BS	520.71	47014	1022-1J1CS	198.61	421.0	1022-		-108	.4' 405.7'	1022-1J4CS	-446.7'	424.2'
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAS	г	1	1		1 1	1	<del></del>
NBU 1022-101BS	-768.8'		NBU 1022-104BS	-1,423.0	425.5	1000 MAN AND M	<u>,</u> %∡	1		4.74722° 0"E 465.4 30ttom Hole)		
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	HE SE $\frac{1}{4}$ OF SE					31,	35/	16	2. (6	m, 6,300		
S.	.l.b.&m. wh	ICH IS TAKE	EN FROM	,		エノエ	444° 1,485.28′	55/18/K /Hole)	. 0.1833°	10/60		
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WEI	LL PAD -	NBU 10	)22-1J		$\mathcal{A}$	609		TI	MBERL	INE	(4:	35) 789-1365
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	PAD INTE IBU 1022-1J					+				300 WEST - VER	NAL, UTAH 840	078
	1022-1J4BS,					JLTING, LI		DATE 02-11	SURVEYED: 1-11	SURVEYED B	Y: R.Y.	SHEET NO:
				- 11	2155 No	rth Main Str		11				
NBU 10	022-1O1BS &								DRAWN:	DRAWN RV	M.W.W	7
NBU 10 Locat	022-1O1BS & FED IN SECT &M., UINTAH	ION 1, T10	OS, R22E,		Sherida	in WY 8280 307-674-060	1	03-01		DRAWN BY:		<b>7</b> 7 OF 18

EXISTING GRADE @ CENTER OF WELL PAD = 5082.7'
FINISHED GRADE ELEVATION = 5076.8'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.32 ACRES
TOTAL DISTURBANCE AREA = 4.62 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

# Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

# WELL PAD - NBU 1022-1J

WELL PAD - LOCATION LAYOUT NBU 1022-1J1BS, NBU 1022-1J1CS, NBU 1022-1J4BS, NBU 1022-1J4CS, NBU 1022-1O1BS & NBU 1022-1O4BS LOCATED IN SECTION 1, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH



2155 North Main Street

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182

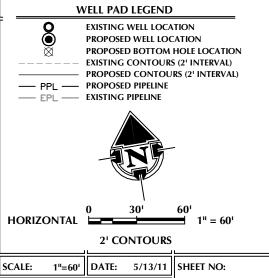
# WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 16,466 C.Y. TOTAL FILL FOR WELL PAD = 13,209 C.Y. TOPSOIL @ 6" DEPTH = 2,680 C.Y. EXCESS MATERIAL = 3,257 C.Y.

# **RESERVE PIT QUANTITIES**

TOTAL CUT FOR RESERVE PIT +/- 8,870 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD) +/- 33,770 BARRELS

TIMBERLINE (435) 789-1365 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078



APF 12/7/11

8

8 OF 18

RECEIVED: February 02, 2012

**REVISED:** 

EXISTING GRADE @ CENTER OF WELL PAD = 5082.7'
FINISHED GRADE ELEVATION = 5076.8'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.32 ACRES
TOTAL DISTURBANCE AREA = 4.62 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

# Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

# WELL PAD - NBU 1022-1J

WELL PAD - LOCATION LAYOUT NBU 1022-1J1BS, NBU 1022-1J1CS, NBU 1022-1J4BS, NBU 1022-1J4CS, NBU 1022-1O1BS & NBU 1022-1O4BS LOCATED IN SECTION 1, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH



2155 North Main Street

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182

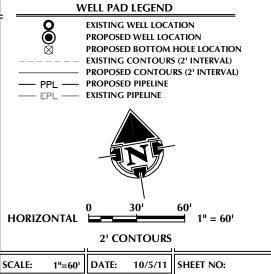
# WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 16,466 C.Y. TOTAL FILL FOR WELL PAD = 13,209 C.Y. TOPSOIL @ 6" DEPTH = 2,680 C.Y. EXCESS MATERIAL = 3,257 C.Y.

# COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT +/- 6,720 C.Y.
COMPLETIONS PIT CAPACITY
(2' OF FREEBOARD)
+/- 25,260 BARRELS

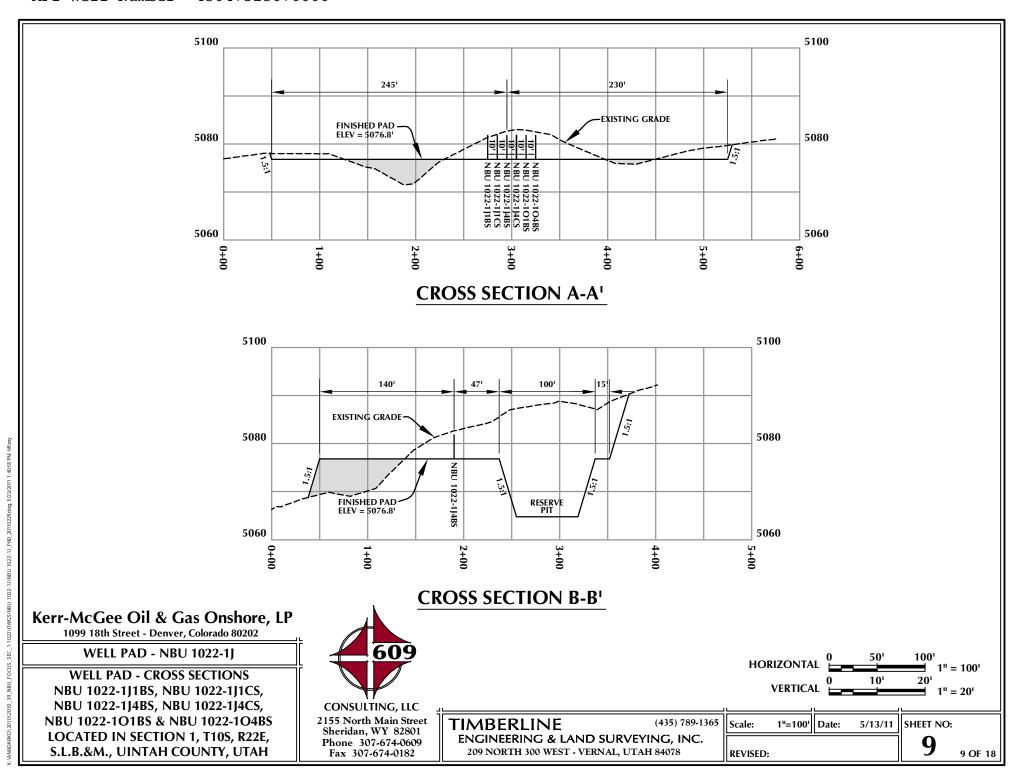
TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078



RECEIVED: February 02, 2012

**REVISED:** 

JFE 11/14/11  $8B_{8BOF18}$ 



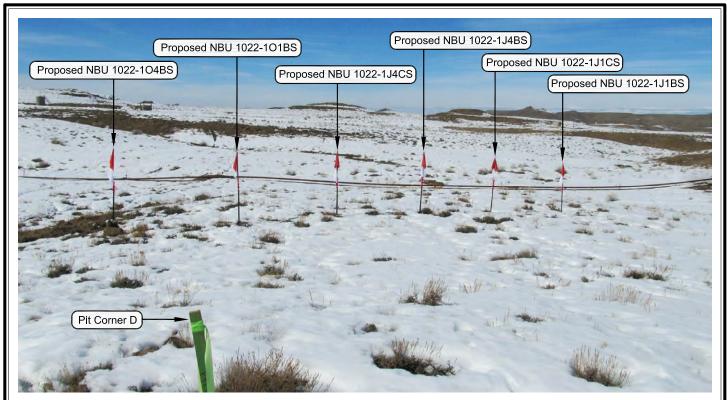


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE





PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

**CAMERA ANGLE: SOUTHWESTERLY** 

# Kerr-McGee Oil & Gas Onshore, LP

### **WELL PAD - NBU 1022-1J**

LOCATION PHOTOS

NBU 1022-1J1BS, NBU 1022-1J1CS,

NBU 1022-1J4BS, NBU 1022-1J4CS,

NBU 1022-1O1BS & NBU 1022-1O4BS

LOCATED IN SECTION 1, T10S, R22E,

S.L.B.&M., UINTAH COUNTY, UTAH.



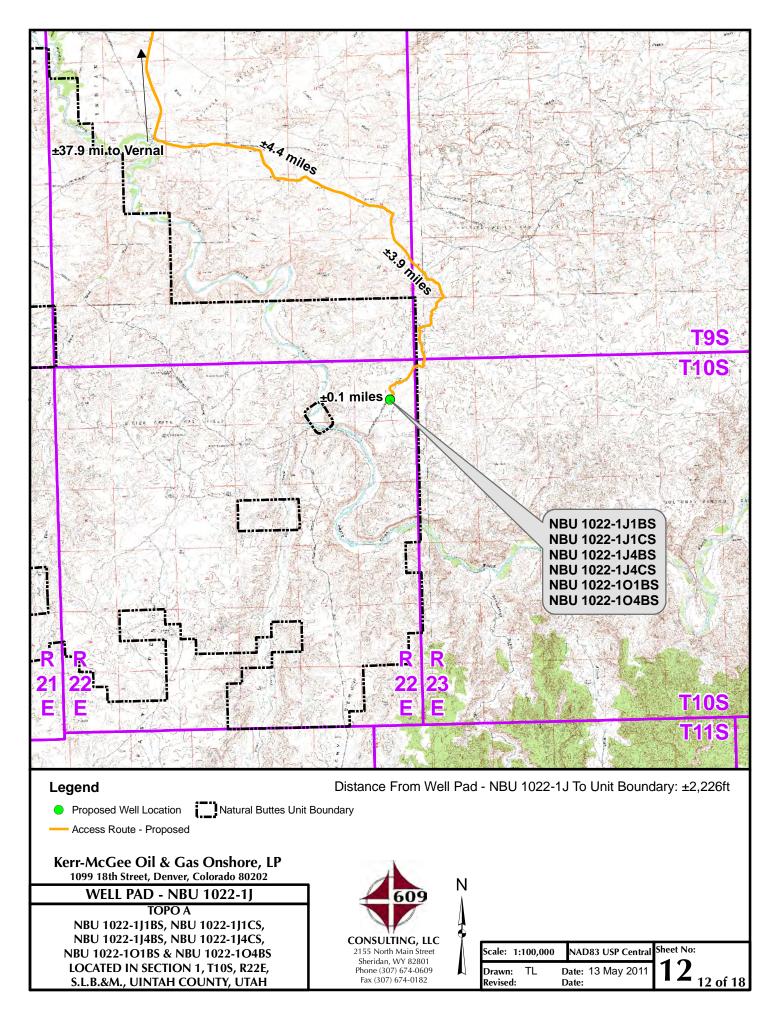
### CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

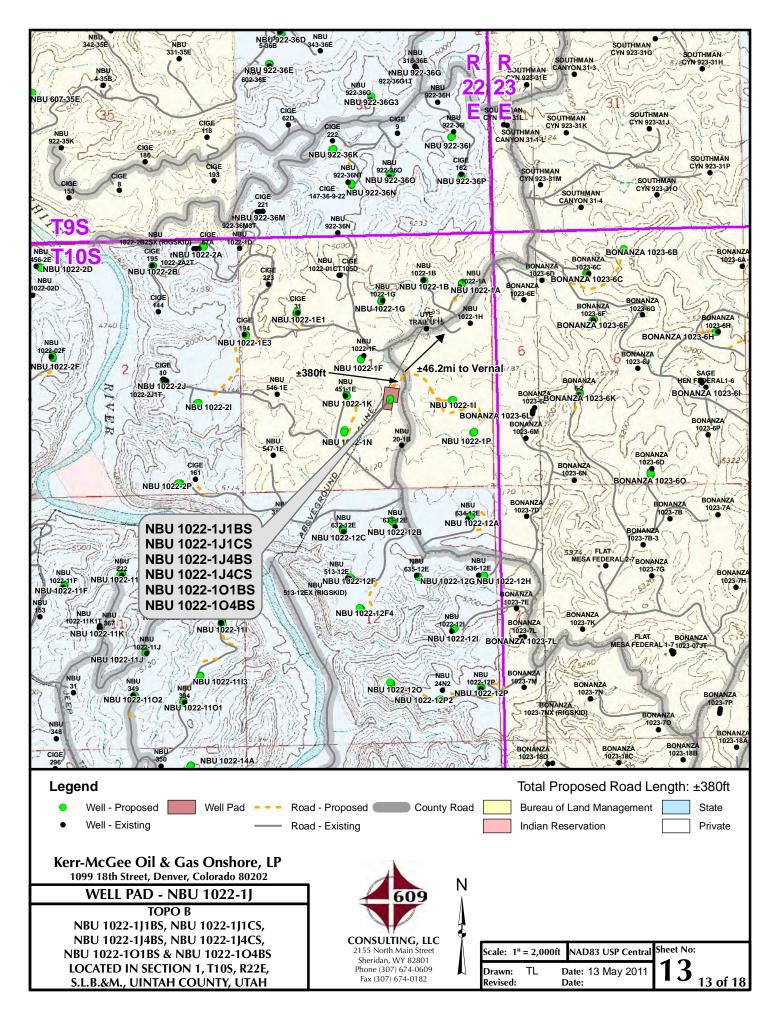
### TIMBERLINE

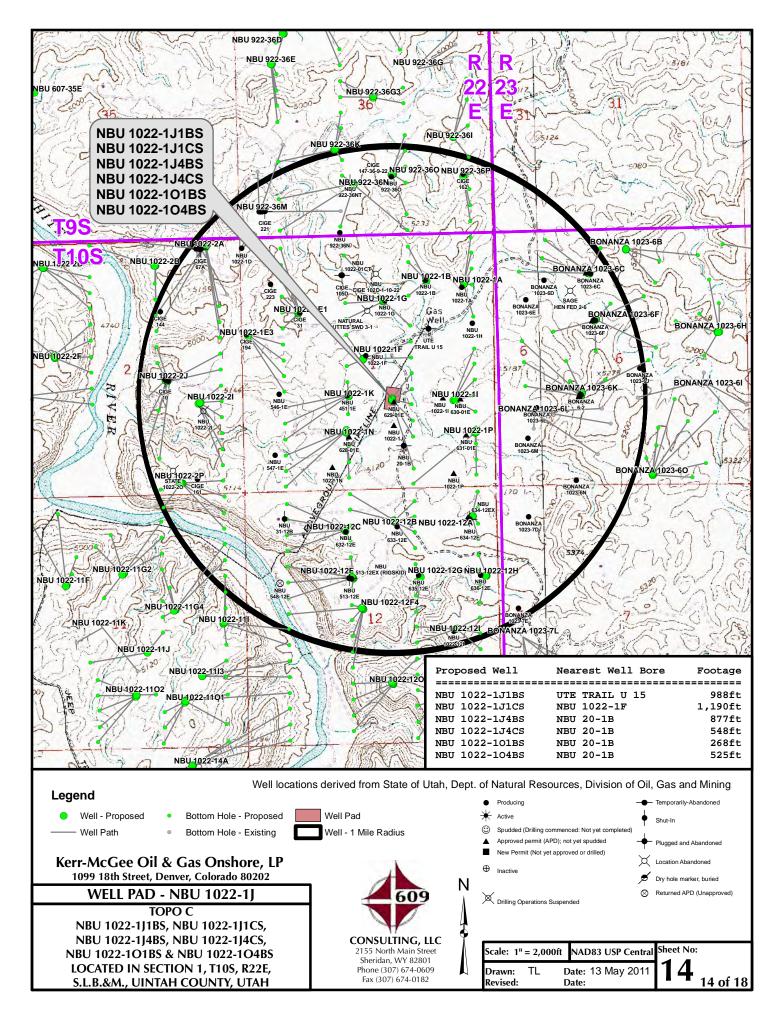
(435) 789-1365

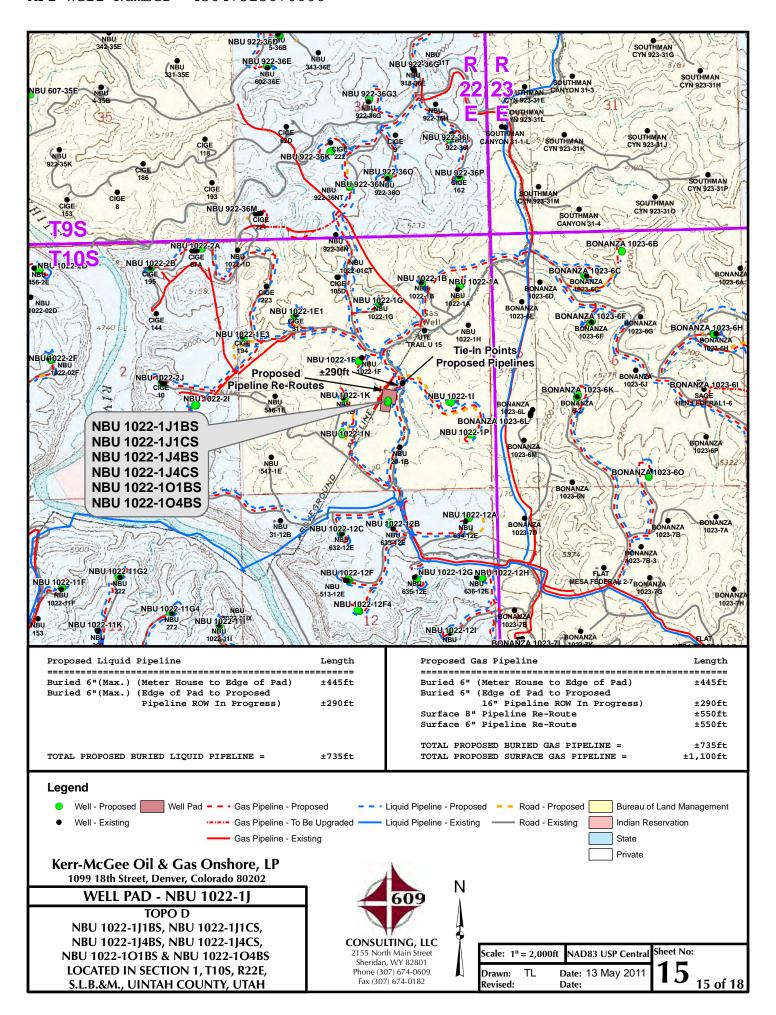
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

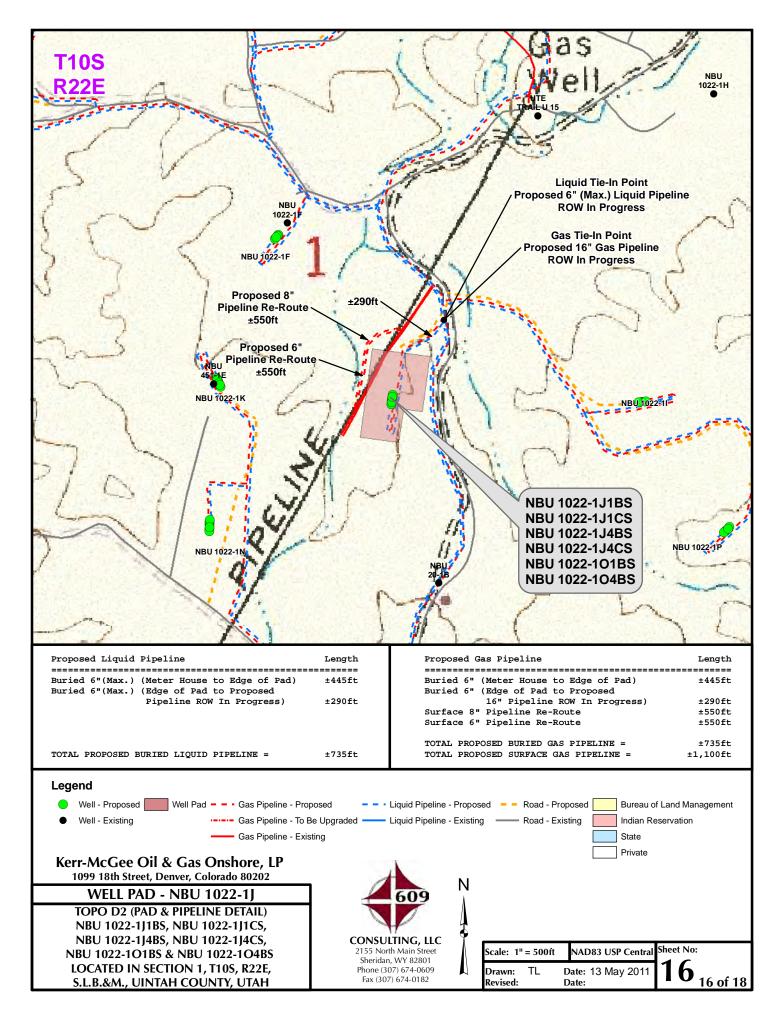
ı			
l	DATE PHOTOS TAKEN:	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
l	02-28-11	PHOTOS TAKEN BY: M.S.B.	STILL TYO.
l	DATE DRAWN:	DRAWN BY: M.W.W.	11
l	03-01-11	DRAWN BY: M.W.W.	
	Date Last Revised:		11 OF 18

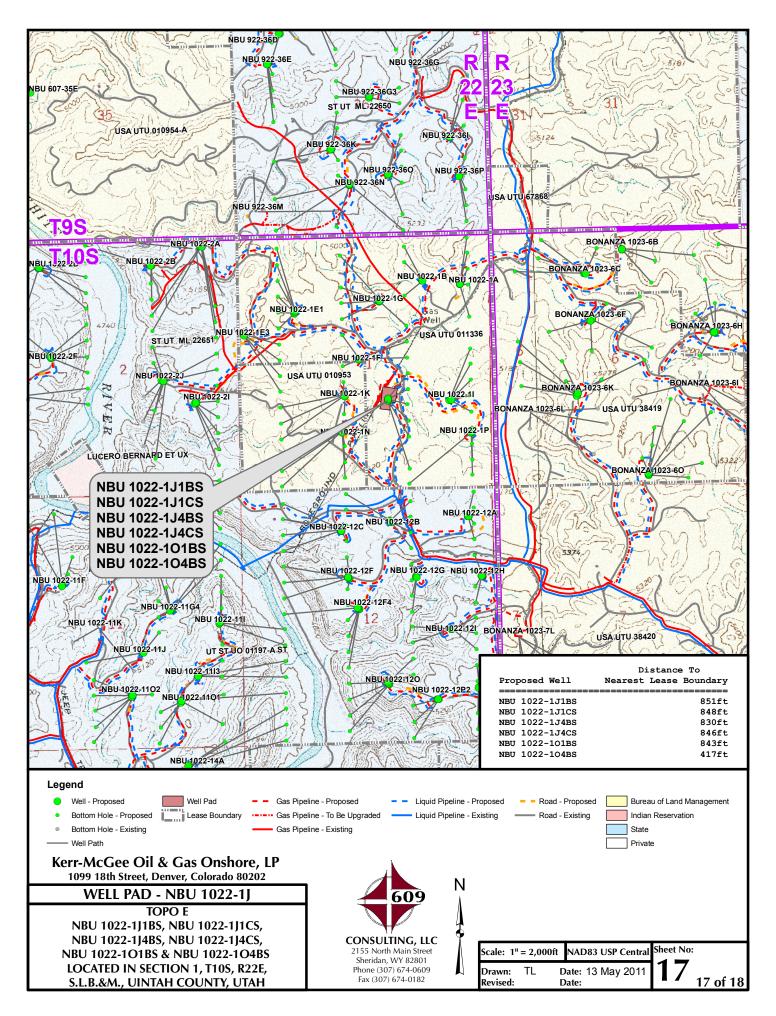












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 1022-1J WELLS – NBU 1022-1J1BS, NBU 1022-1J1CS, NBU 1022-1J4BS, NBU 1022-1J4CS, NBU 1022-1O1BS & NBU 1022-1O4BS Section 1, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southeasterly, then southerly direction along the Seven Sisters Road approximately 3.9 miles to the proposed access road to the southwest. Follow road flags in a southwesterly direction approximately 380 feet to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 46.3 miles in a southerly direction.

**SHEET 18 OF 18** 

API Well Number: 43047 526 257 OUTAG: UTM (feet), NAD27, Zone 12N

Scientific Drilling

Rocky Mountain Operations

Vertical Section at 163.40° (1500 ft/in)

Site: NBU 1022-1J PAD Well: NBU 1022-104BS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

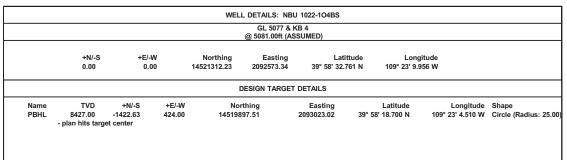


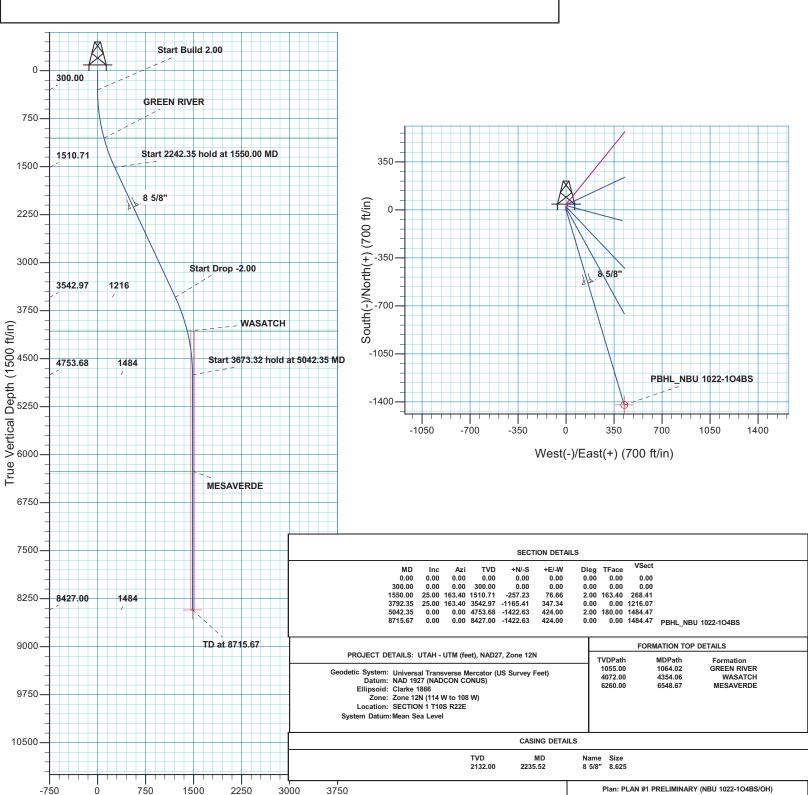
Created By: RobertScott Date: 13:42, August 22 2011



Azimuths to True North Magnetic North: 11.00°

Magnetic Field Strength: 52312.3snT Dip Angle: 65.87° Date: 08/22/2011 Model: IGRF2010





RECEIVED:



# **US ROCKIES REGION PLANNING**

UTAH - UTM (feet), NAD27, Zone 12N NBU 1022-1J PAD NBU 1022-1O4BS

OH

Plan: PLAN #1 PRELIMINARY

# **Standard Planning Report**

22 August, 2011





## SDI Planning Report



EDM5000-RobertS-Local Database:

Company: US ROCKIES REGION PLANNING Local Co-ordinate Reference:

Well NBU 1022-104BS GL 5077 & KB 4

TVD Reference:

MD Reference:

@ 5081.00ft (ASSUMED)

GL 5077 & KB 4

@ 5081.00ft (ASSUMED)

North Reference:

**Survey Calculation Method:** 

Minimum Curvature

Project: Site:

NBU 1022-1J PAD

Well:

NBU 1022-104BS

Wellbore:

OH

Design:

PLAN #1 PRELIMINARY

UTAH - UTM (feet), NAD27, Zone 12N **Project** 

Map System:

Universal Transverse Mercator (US Survey Feet) NAD 1927 (NADCON CONUS)

UTAH - UTM (feet), NAD27, Zone 12N

System Datum:

Mean Sea Level

Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

NBU 1022-1J PAD, SECTION 1 T10S R22E Site

14,521,361.90 usft Site Position: Northing: 39° 58' 33.251 N Latitude: From: Lat/Long Easting: 2,092,580.28 usft Longitude: 109° 23' 9.856 W

0.00 ft 13.200 in 1.04° **Position Uncertainty:** Slot Radius: **Grid Convergence:** 

Well NBU 1022-104BS, 1838 FSL 2234 FEL

**Well Position** -49.53 ft 14.521.312.24 usft 39° 58' 32.761 N +N/-S Northing: Latitude:

+E/-W -7.85 ft Easting: 2,092,573.33 usft Longitude: 109° 23' 9.956 W **Position Uncertainty** 0.00 ft Wellhead Elevation: Ground Level: 5.077.00 ft

ОН Wellbore

Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (°) (nT) IGRF2010 08/22/11 11.00 65.87 52,312

PLAN #1 PRELIMINARY Design

0.00

0.00

0.00

0.00

0.00

0.00

Audit Notes:

8,715.67

PLAN 0.00 Version: Phase: Tie On Depth:

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°)

-1,422.63

0.00

8,427.00

**Plan Sections** Measured Vertical Dogleg Build Turn Depth Inclination Azimuth Depth +N/-S +E/-W Rate Rate Rate TFO (°/100ft) (°/100ft) (ft) (°) (°) (ft) (ft) (ft) (°/100ft) Target (°) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 0.00 0.00 25.00 -257.23 76.66 2.00 2.00 0.00 163.40 1,550.00 163.40 1,510.71 3,792.35 25.00 163.40 3,542.97 -1,165.41 347.34 0.00 0.00 0.00 0.00 5,042.35 0.00 0.00 4,753.68 -1 422 63 424 00 2 00 -2.00 0.00 180.00

424.00

163.40

0.00

0.00 PBHL\_NBU 1022-10<sup>4</sup>



# **SDI**Planning Report



Database: EDM5000-RobertS-Local

Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-1J PAD

 Well:
 NBU 1022-104BS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:

@ 5081.00ft (ASSUMED)

MD Reference: GL 5077 & KB 4

Well NBU 1022-104BS

GL 5077 & KB 4

@ 5081.00ft (ASSUMED)

North Reference: True

Survey Calculation Method: Minimum Curvature

Measured   Depth   Inclination   Azimuth   Depth   Depth   (f)	Planned Survey									
100.00	Depth			Depth			Section	Rate	Rate	Rate
400.00	100.00 200.00	0.00 0.00	0.00 0.00	100.00 200.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
600.00			163.40	399.98	-1.67	0.50	1.75	2.00	2.00	0.00
1,064.02   15.28   163.40   1,055.00   -97.06   28.93   101.28   2.00   2.00   0.00	600.00 700.00 800.00	6.00 8.00 10.00	163.40 163.40 163.40	599.45 698.70 797.47	-15.04 -26.72 -41.71	4.48 7.96 12.43	15.69 27.88 43.52	2.00 2.00 2.00	2.00 2.00 2.00	0.00 0.00 0.00
1,100 00	1,064.02	15.28								
1,200.00										
1,500.00	1,200.00	18.00	163.40	1,185.27	-134.37	40.05	140.21	2.00	2.00	0.00
Start 2242.35 hold at 1550.00 MD	1,500.00	24.00	163.40	1,465.21	-237.36	70.74	247.67	2.00	2.00	0.00
1,700.00				.,						
1,900.00	,			,						
8 5/8"         2,300.00         25.00         163.40         2,190.44         -560.99         167.20         585.37         0.00         0.00         0.00           2,400.00         25.00         163.40         2,281.07         -601.49         179.27         627.63         0.00         0.00         0.00           2,500.00         25.00         163.40         2,371.70         -641.99         191.34         669.90         0.00         0.00         0.00           2,600.00         25.00         163.40         2,462.34         -682.49         203.41         712.16         0.00         0.00         0.00           2,700.00         25.00         163.40         2,552.97         -722.99         215.48         754.42         0.00         0.00         0.00           2,800.00         25.00         163.40         2,643.60         -763.49         227.55         796.68         0.00         0.00         0.00           2,900.00         25.00         163.40         2,824.86         -844.50         251.69         881.20         0.00         0.00         0.00           3,000.00         25.00         163.40         2,915.49         -885.00         263.76         923.47         0.00         0.00 </td <td>1,900.00 2,000.00 2,100.00</td> <td>25.00 25.00 25.00</td> <td>163.40 163.40 163.40</td> <td>1,827.92 1,918.55 2,009.18</td> <td>-398.98 -439.48 -479.98</td> <td>118.91 130.98 143.05</td> <td>416.32 458.59 500.85</td> <td>0.00 0.00 0.00</td> <td>0.00 0.00 0.00</td> <td>0.00 0.00 0.00</td>	1,900.00 2,000.00 2,100.00	25.00 25.00 25.00	163.40 163.40 163.40	1,827.92 1,918.55 2,009.18	-398.98 -439.48 -479.98	118.91 130.98 143.05	416.32 458.59 500.85	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
2,300.00		25.00	163.40	2,132.00	-534.87	159.41	558.12	0.00	0.00	0.00
2,800.00	2,300.00 2,400.00 2,500.00	25.00 25.00	163.40 163.40	2,281.07 2,371.70	-601.49 -641.99	179.27 191.34	627.63 669.90	0.00 0.00	0.00 0.00	0.00 0.00
3,300.00       25.00       163.40       3,096.75       -966.00       287.91       1,007.99       0.00       0.00       0.00         3,400.00       25.00       163.40       3,187.38       -1,006.50       299.98       1,050.25       0.00       0.00       0.00         3,500.00       25.00       163.40       3,278.01       -1,047.00       312.05       1,092.51       0.00       0.00       0.00         3,600.00       25.00       163.40       3,368.64       -1,087.50       324.12       1,134.78       0.00       0.00       0.00         3,700.00       25.00       163.40       3,459.27       -1,128.00       336.19       1,177.04       0.00       0.00       0.00         3,792.35       25.00       163.40       3,542.97       -1,165.41       347.34       1,216.07       0.00       0.00       0.00         Start Drop -2.00         3,800.00       24.85       163.40       3,549.91       -1,168.50       348.26       1,219.29       2.00       -2.00       0.00         3,900.00       22.85       163.40       3,641.37       -1,207.24       359.80       1,259.72       2.00       -2.00       0.00         4,000.00	2,800.00 2,900.00 3,000.00	25.00 25.00 25.00	163.40 163.40 163.40	2,643.60 2,734.23 2,824.86	-763.49 -803.99 -844.50	227.55 239.62 251.69	796.68 838.94 881.20	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
3,792.35	3,300.00 3,400.00 3,500.00	25.00 25.00 25.00	163.40 163.40 163.40	3,096.75 3,187.38 3,278.01	-966.00 -1,006.50 -1,047.00	287.91 299.98 312.05	1,007.99 1,050.25 1,092.51	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
3,800.00       24.85       163.40       3,549.91       -1,168.50       348.26       1,219.29       2.00       -2.00       0.00         3,900.00       22.85       163.40       3,641.37       -1,207.24       359.80       1,259.72       2.00       -2.00       0.00         4,000.00       20.85       163.40       3,734.18       -1,242.90       370.43       1,296.93       2.00       -2.00       0.00	3,792.35	25.00								
	3,800.00 3,900.00	24.85 22.85	163.40	3,641.37	-1,207.24	359.80	1,259.72	2.00	-2.00	0.00
	4,100.00	18.85	163.40	3,828.24	-1,242.90	380.13	1,330.88	2.00	-2.00	0.00



# SDI Planning Report



EDM5000-RobertS-Local Database:

Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 1022-1J PAD Well: NBU 1022-104BS

Wellbore: ОН

Design: PLAN #1 PRELIMINARY Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** 

Well NBU 1022-104BS

GL 5077 & KB 4

@ 5081.00ft (ASSUMED) GL 5077 & KB 4

@ 5081.00ft (ASSUMED)

True

Minimum Curvature

lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00	16.85	163.40	3,923.42	-1,304.81	388.88	1,361.52	2.00	-2.00	0.00
4,300.00	14.85	163.40	4,019.61	-1,330.97	396.68	1,388.83	2.00	-2.00	0.00
4,354.06	13.77	163.40	4,072.00	-1,343.78	400.50	1,402.19	2.00	-2.00	0.00
<b>WASATCH</b> 4,400.00	12.85	163.40	4,116.70	-1,353.91	403.52	1,412.76	2.00	-2.00	0.00
4,500.00	10.85	163.40	4,214.57	-1,373.58	409.38	1,433.29	2.00	-2.00	0.00
4,600.00	8.85	163.40	4,313.09	-1,389.97	414.26	1,450.39	2.00	-2.00	0.00
4,700.00	6.85	163.40	4,412.15	-1,403.05	418.16	1,464.04	2.00	-2.00	0.00
4,800.00	4.85	163.40	4,511.62	-1,412.82	421.07	1,474.23	2.00	-2.00	0.00
4,900.00	2.85	163.40	4,611.39	-1,419.25	422.99	1,480.94	2.00	-2.00	0.00
5,000.00	0.85	163.40	4,711.34	-1,422.33	423.91	1,484.16	2.00	-2.00	0.00
5,042.35	0.00	0.00	4,753.68	-1,422.63	424.00	1,484.47	2.00	-2.00	0.00
	2 hold at 5042.35	5 MD	,	•		,			
5,100.00	0.00	0.00	4,811.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
5,200.00	0.00	0.00	4,911.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
5,300.00	0.00	0.00	5,011.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
5,400.00	0.00	0.00	5,111.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
5,500.00	0.00	0.00	5,211.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
5,600.00	0.00	0.00	5,311.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
5,700.00	0.00	0.00	5,411.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
5,800.00	0.00	0.00	5,511.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
5,900.00	0.00	0.00	5,611.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,000.00	0.00	0.00	5,711.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,100.00	0.00	0.00	5,811.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,200.00	0.00	0.00	5,911.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,300.00	0.00	0.00	6,011.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,400.00	0.00	0.00	6,111.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,500.00	0.00	0.00	6,211.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,548.67	0.00	0.00	6,260.00	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
MESAVERDE	E								
6,600.00	0.00	0.00	6,311.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,700.00	0.00	0.00	6,411.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,800.00	0.00	0.00	6,511.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
6,900.00	0.00	0.00	6,611.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
7,000.00	0.00	0.00	6,711.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
7,100.00	0.00	0.00	6,811.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
7,200.00	0.00	0.00	6,911.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
7,300.00	0.00	0.00	7,011.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
7,400.00	0.00	0.00	7,111.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
7,500.00	0.00	0.00	7,211.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
7,600.00	0.00	0.00	7,311.33	-1,422.63	424.00	1,484.47	0.00	0.00	0.00
7,700.00 7,800.00 7,900.00 8,000.00 8,100.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	7,411.33 7,511.33 7,611.33 7,711.33 7,811.33	-1,422.63 -1,422.63 -1,422.63 -1,422.63 -1,422.63	424.00 424.00 424.00 424.00 424.00	1,484.47 1,484.47 1,484.47 1,484.47	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
8,100.00 8,200.00 8,300.00	0.00	0.00 0.00 0.00	7,811.33 7,911.33 8,011.33	-1,422.63 -1,422.63 -1,422.63	424.00 424.00 424.00	1,484.47 1,484.47 1,484.47	0.00	0.00	0.00
8,400.00 8,500.00 8,600.00 8,700.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	8,111.33 8,211.33 8,311.33 8,411.33	-1,422.63 -1,422.63 -1,422.63 -1,422.63	424.00 424.00 424.00 424.00	1,484.47 1,484.47 1,484.47 1,484.47	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00



## SDI Planning Report



Database: Company: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: NBU 1022-1J PAD NBU 1022-104BS

Design:

Local Co-ordinate Reference:

**Survey Calculation Method:** 

TVD Reference:

MD Reference:

North Reference:

Well NBU 1022-104BS GL 5077 & KB 4 @ 5081.00ft (ASSUMED)

GL 5077 & KB 4

@ 5081.00ft (ASSUMED)

True

Minimum Curvature

Wellbore: PLAN #1 PRELIMINARY

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,715.67 <b>PBHL_NBU</b>	0.00 <b>1022-104BS</b>	0.00	8,427.00	-1,422.63	424.00	1,484.47	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-104B - plan hits target cen - Circle (radius 25.00	ter	0.00	8,427.00	-1,422.63	424.00	14,519,897.51	2,093,023.01	39° 58′ 18.700 N	109° 23' 4.510 W

Ca	asing Points							
		Measured	Vertical			Casing	Hole	
		Depth	Depth			Diameter	Diameter	
		(ft)	(ft)		Name	(in)	(in)	
		2,235.52	2,132.00	8 5/8"		8.625	11.000	

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,064.02	1,055.00	GREEN RIVER				
	4,354.06	4,072.00	WASATCH				
	6,548.67	6,260.00	MESAVERDE				

Plan Annotations				
Measured	l Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.0	300.00	0.00	0.00	Start Build 2.00
1,550.0	00 1,510.71	-257.23	76.66	Start 2242.35 hold at 1550.00 MD
3,792.3	3,542.97	-1,165.41	347.34	Start Drop -2.00
5,042.3	35 4,753.68	-1,422.63	424.00	Start 3673.32 hold at 5042.35 MD
8,715.6	8,427.00	-1,422.63	424.00	TD at 8715.67

NBU 1022-1J1BS / 1022-1J1CS / 1022-1J4BS 1022-1J4CS / 1022-1O1BS / 1022-1O4BS NBU 1022-1J Pad Surface Use Plan of Operations 1 of 14

# Kerr-McGee Oil & Gas Onshore. L.P.

## **NBU 1022-1J Pad**

<u>API #</u>	NBU 1022-1J1BS				
	Surface:	1887 FSL / 2226 FEL	NWSE	Lot	
	BHL:	2410 FSL / 1807 FEL	NWSE	Lot	
<u>API #</u>	Γ	NBU 1022-1J1CS			
	Surface:	1877 FSL / 2227 FEL	NWSE	Lot	
	BHL:	2078 FSL / 1807 FEL	NWSE	Lot	
API #4304739312	NBU 1022-1J4BS (fka NBU 629-01E)				
	Surface:	1867 FSL / 2229 FEL	NWSE	Lot	
	BHL:	1761 FSL / 1823 FEL	NWSE	Lot	
<u>API #</u>	ſ	NBU 1022-1J4CS			
	Surface:	1857 FSL / 2231 FEL	NWSE	Lot	
	BHL:	1413 FSL / 1805 FEL	NWSE	Lot	
<u>API #</u>	ſ	NBU 1022-1O1BS			
	Surface:	1847 FSL / 2232 FEL	NWSE	Lot	
	BHL:	1081 FSL / 1805 FEL	SWSE	Lot	
API # NBU 1022-1O4BS					
	Surface:	1838 FSL / 2234 FEL	NWSE	Lot	
	BHL:	417 FSL / 1804 FEL	SWSE	Lot	

An Application for Permit to Drill (APD) was approved by the BLM on January 12, 2009 for the NBU 629-01E well location. A Sundry Notice under separate cover will be submitted to change the location and the well name to the NBU 1022-1J4BS.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

### A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating

NBU 1022-1J1BS / 1022-1J1CS / 1022-1J4BS 1022-1J4CS / 1022-1O1BS / 1022-1O4BS

NBU 1022-1J Pad Surface Use Plan of Operations 2 of 14

conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

#### B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

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NBU 1022-1J Pad Surface Use Plan of Operations 3 of 14

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

### The following segments are "on-lease"

 $\pm 380'$  (0.1 miles) – Section 1 T10S R22E (NW/4 SE/4) – On-lease UTU011336, new access road from the edge of the pad to the existing road. Please refer to Topo B.

### C. Location of Existing Wells:

A) Refer to Topo Map C.

### D. Location of Existing and/or Proposed Facilities:

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

### **GAS GATHERING**

Please refer to Exhibit A and Topo D- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent).

Kerr-McGee proposes to install gas gathering lines to tie into a previously approved buried gas pipeline covered under ROW UTU-88692. The total of this proposed gas gathering from the meter to the approved 16" gas pipeline is  $\pm 735$ '. There will also be  $\pm 1,100$ ' of surface gas pipeline that will be re-routed and will tie into an existing gas pipeline. The individual segments are broken up as follows:

### The following segments are "onlease", no ROW needed.

±445' (0.1 miles) – Section 1 T10S R22E (NW/4 SE/4) – On-lease UTU011336, BLM surface, New 6" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

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- ±290' (0.05 miles) Section 1 T10S R22E (NW/4 SE/4) On-lease UTU011336, BLM surface, New 6" buried gas gathering pipeline from the edge of the pad to the tie-in at the previously approved 16" gas gathering pipeline. Please refer to Exhibit A, Line 7.
- ±550' (0.2 miles) Section 1 T10S R22E (NW/4 SE/4) On-lease UTU011336, BLM surface, Re-routed 8" surface gas gathering pipeline from the edge of the pad to an existing gas pipeline. Please refer to Topo D2 Pad and Pipeline Detail.
- ±550' (0.2 miles) Section 1 T10S R22E (NW/4 SE/4) On-lease UTU011336, BLM surface, Re-routed 6" surface gas gathering pipeline from the edge of the pad to an existing gas pipeline. Please refer to Topo D2 Pad and Pipeline Detail.

Kerr-McGee proposes to install liquid gathering lines to tie into a previously approved buried liquid pipeline covered under ROW UTU-88691. The total of this proposed liquid gathering from the separator to the approved liquid pipeline is  $\pm 735'$  and the individual segments are broken up as follows:

### The following segments are "onlease", no ROW needed.

- ±445' (0.1 miles) Section 1 T10S R22E (NW/4 SE/4) On-lease UTU011336, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±290' (0.05 miles) Section 1 T10S R22E (NW/4 SE/4) On-lease UTU011336, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to the tie-in at the previously approved liquid gathering pipeline. Please refer to Exhibit B, Line 7.

### **Pipeline Gathering Construction**

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and 10/10/2011

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construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage

crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface. Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

### The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is disussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

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If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

The collected hydrocarbons will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit .

ACTS will require temporarily laying multiple 6" aluminum water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

### E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

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NBU 1022-1J1BS / 1022-1J1CS / 1022-1J4BS 1022-1J4CS / 1022-1O1BS / 1022-1O4BS

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### F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

### G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

NBU 1022-1J1BS / 1022-1J1CS / 1022-1J4BS 1022-1J4CS / 1022-1O1BS / 1022-1O4BS

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Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

### **Materials Management**

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

NBU 1022-1J1BS / 1022-1J1CS / 1022-1J4BS 1022-1J4CS / 1022-1O1BS / 1022-1O4BS

NBU 1022-1J Pad Surface Use Plan of Operations 9 of 14

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

Bonanza Evaporation Pond in Sec. 2 T10S R23E

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

# H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

### I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of distrubance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

10/10/2011

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NBU 1022-1J1BS / 1022-1J1CS / 1022-1J4BS 1022-1J4CS / 1022-1O1BS / 1022-1O4BS

NBU 1022-1J Pad Surface Use Plan of Operations 10 of 14

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

### J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

#### **Interim Reclamation**

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

#### **Final Reclamation**

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

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NBU 1022-1J1BS / 1022-1J1CS / 1022-1J4BS 1022-1J4CS / 1022-1O1BS / 1022-1O4BS

NBU 1022-1J Pad Surface Use Plan of Operations 11 of 14

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

#### **Measures Common to Interim and Final Reclamation**

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for

re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Shadescale Mix	Pure Live Seed lbs/acre
Indian Ricegrass	3
Sandberg	0.75
Bottlebrush	1
Great Basin	0.5
Crested	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing	0.75
Forage Kochia	0.25
Total	9.5

10/10/2011

NBU 1022-1J1BS / 1022-1J1CS / 1022-1J4BS 1022-1J4CS / 1022-1O1BS / 1022-1O4BS

NBU 1022-1J Pad Surface Use Plan of Operations 12 of 14

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

#### **Weed Control**

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

### Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

# K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

#### L. Other Information:

#### **Cultural and Paleontological Resources**

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

10/10/2011

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# **Resource Reports:**

A Class I literature survey was completed in May 2011 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-145.

A paleontological reconnaissance survey was completed in June, 2010 and July, 2011 by SWCA Environmental Consultants. For additional details please refer to reports UT11-14314-28, UT11-14314-32 and UT11-14314-33.

Biological field survey was completed in May and June of 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to reports GCI-515 and GCI 559.

# **Proposed Action Annual Emissions Tables:**

Table 1: Proposed Action Annual Emissions (tons/year) <sup>1</sup>								
Pollutant	Development	Production	Total					
NOx	3.8	0.12	3.92					
CO	2.2	0.11	2.31					
VOC	0.1	4.9	5					
$SO_2$	0.005	0.0043	0.0093					
$PM_{10}$	1.7	0.11	1.81					
PM <sub>2.5</sub>	0.4	0.025	0.425					
Benzene	2.2E-03	0.044	0.046					
Toluene	1.6E-03	0.103	0.105					
Ethylbenzene	3.4E-04	0.005	0.005					
Xylene	1.1E-03	0.076	0.077					
n-Hexane	1.7E-04	0.145	0.145					
Formaldehyde	1.3E-02	8.64E-05	1.31E-02					

<sup>&</sup>lt;sup>1</sup> Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Pr	Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison							
	Proposed Action Production Emissions	WRAP Phase III 2012 Uintah Basin Emission	Percentage of Proposed Action to WRAP Phase					
Species	(ton/yr)	Inventory <sup>a</sup> (ton/yr)	III					
NOx	23.52	16,547	0.14%					
VOC	30	127,495	0.02%					

 $<sup>^</sup>a\ http://www.wrapair.org/forums/ogwg/Phase III\_Inventory.html$ 

Uintah Basin Data

NBU 1022-1J1BS / 1022-1J1CS / 1022-1J4BS 1022-1J4CS / 1022-1O1BS / 1022-1O4BS NBU 1022-1J Pad Surface Use Plan of Operations 14 of 14

# M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Gina T.Becker

October 10, 2011

Date



Joseph D. Johnson 1099 18th Street Ste. 1800 • Denver, CO 80202 720-929-6708 • FAX 720-929-7708 E-MAIL: JOE.JOHNSON @ ANADARKO.COM

September 28, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 1022-104BS

T10S-R22E

Section 1: NWSE/SWSE Surface: 1838' FSL, 2234' FEL Bottom Hole: 417' FSL, 1804' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

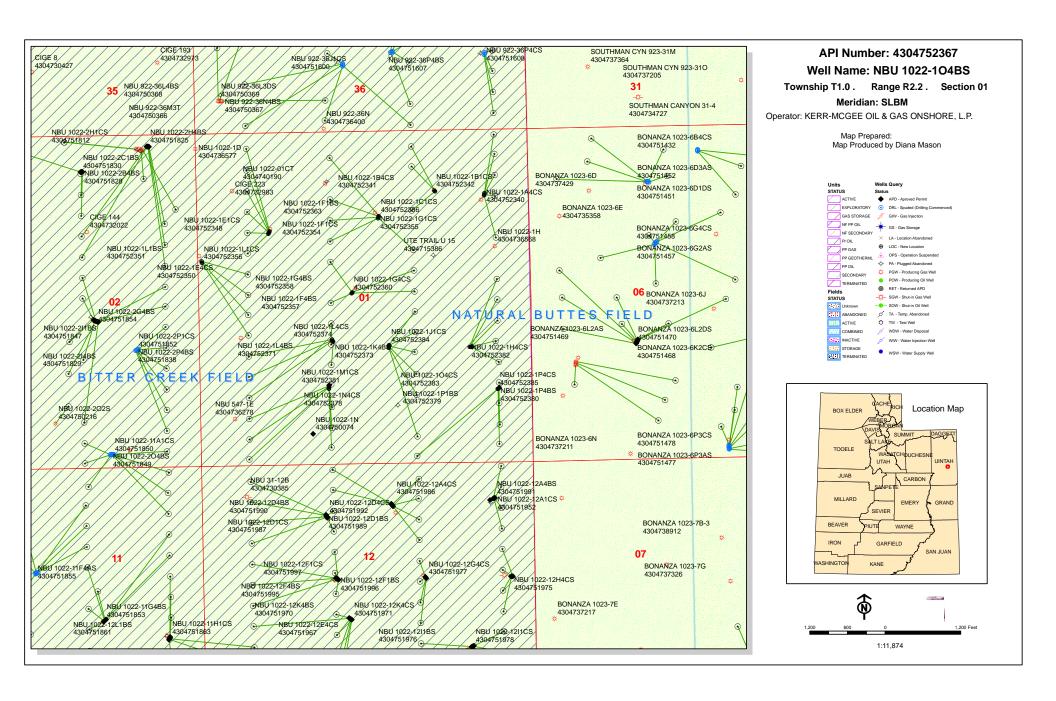
- Kerr-McGee's NBU 1022-104BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson Landman



# **United States Department of the Interior**

# BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

February 10, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

#### WELL PAD - NBU 1022-25D

43-047-52295 NBU 1022-25C2DS Sec 25 T10S R22E 0653 FNL 0339 FWL BHL Sec 25 T10S R22E 0488 FNL 1933 FWL 43-047-52296 NBU 1022-25C3DS Sec 25 T10S R22E 0730 FNL 0314 FWL BHL Sec 25 T10S R22E 1147 FNL 1931 FWL 43-047-52297 NBU 1022-25C3AS Sec 25 T10S R22E 0732 FNL 0324 FWL BHL Sec 25 T10S R22E 0820 FNL 1938 FWL 43-047-52298 NBU 1022-25D2DS Sec 25 T10S R22E 0650 FNL 0319 FWL (BH) BHL Sec 25 T10S R22E 0485 FNL 0630 FWL 43-047-52299 NBU 1022-25F2AS Sec 25 T10S R22E 0652 FNL 0329 FWL BHL Sec 25 T10S R22E 1482 FNL 1955 FWL 43-047-52300 NBU 1022-25D3DS Sec 25 T10S R22E 0727 FNL 0295 FWL BHL Sec 25 T10S R22E 1152 FNL 0630 FWL 43-047-52301 NBU 1022-25D3AS Sec 25 T10S R22E 0729 FNL 0305 FWL BHL Sec 25 T10S R22E 0822 FNL 0631 FWL 43-047-52302 NBU 1022-25E2AS Sec 25 T10S R22E 0648 FNL 0309 FWL BHL Sec 25 T10S R22E 1479 FNL 0631 FWL WELL PAD - NBU 1022-1A 43-047-52335 NBU 1022-1A1BS Sec 01 T10S R22E 1030 FNL 0663 FEL BHL Sec 01 T10S R22E 0099 FNL 0498 FEL

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API #	WE:	LL NAME		LO	CATIO	N		
(Proposed PZ	WASA	ATCH-MESA VEF	RDE)					
43-047-52336	NBU	1022-1A1CS BF						
43-047-52337	NBU	1022-1A4BS BF						
43-047-52338	NBU	1022-1H1CS BF						
43-047-52340		ВЕ						
<b>WELL PAD - NI</b> 43-047-52339								
43-047-52341	NBU	1022-1B4CS BF						
43-047-52342		ВЕ						
<b>WELL PAD - NI</b> 43-047-52343								
43-047-52344	NBU	1022-1D1CS BF						
43-047-52345	NBU	1022-1D4BS BF						
43-047-52346	NBU	1022-1D4CS BF						
43-047-52347	NBU		Sec HL Sec					
43-047-52348  WELL PAD - NI		BI	Sec HL Sec					
43-047-52349		1022-1E4BS	Sec HL Sec					
43-047-52350	NBU		Sec HL Sec					
43-047-52351	NBU		Sec HL Sec					
43-047-52356		ВЕ	Sec HL Sec					
<b>WELL PAD - NI</b> 43-047-52352		1022-1K1BS	Sec HL Sec					

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API #	WE:	LL NAME			LO	CATIO	N		
(Proposed PZ	WASA	ATCH-MESA VERD	Ε						
43-047-52357	NBU	1022-1F4BS BHL			T10S T10S				
43-047-52358	NBU	1022-1G4BS BHL			T10S T10S				
43-047-52360	NBU	1022-1G4CS BHL							
WELL PAD - N	RTT 10	022-1G							
		-	0	0.1	m1 0 0	DOOR	1266	 0054	
43-047-52353	NBU	1022-1C4CS BHL			T10S T10S				
43-047-52354	NBU	1022-1F1CS BHL			T10S T10S				
43-047-52355	NBU	1022-1G1CS BHL			T10S T10S				
43-047-52363	NBU	1022-1F1BS BHL			T10S T10S				
		1022-1C1CS BHL							
WELL PAD - N									
43-047-52359	NBU	1022-1J1BS BHL			T10S T10S				
43-047-52362	NBU	1022-101BS BHL			T10S T10S				
43-047-52366	NBU	1022-1J4CS BHL							
43-047-52367	NBU	1022-104BS BHL			T10S T10S				
43-047-52384	NBU	1022-1J1CS BHL			T10S T10S				
	D	200 1**							
WELL PAD - N	-								
43-047-52361	NBU	1022-1M1BS BHL			T10S T10S				
43-047-52365	NBU	1022-1K1CS BHL			T10S T10S				
43-047-52370	NBU	1022-1K4CS BHL			T10S T10S				
43-047-52371	NBU	1022-1L4BS BHL			T10S T10S				

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API #	WE:	LL NAME		LO	CATIO	N		
(Proposed PZ	WASA	ATCH-MESA VERD	E					
43-047-52373	NBU	1022-1K4BS BHL			R22E R22E			
43-047-52374	NBU	1022-1L4CS BHL						
WELL PAD - NI	BU 10	022-1I						
43-047-52364	NBU	1022-1I4CS BHL			R22E R22E			
43-047-52368	NBU	1022-1I1BS BHL			R22E R22E			
43-047-52369	NBU	1022-1I1CS BHL			R22E R22E			
43-047-52382 WELL PAD - NI		1022-1H4CS BHL						
		1022-1M4CS			R22E R22E			
43-047-52375	NBU	1022-1M4BS BHL			R22E R22E			
43-047-52376	NBU	1022-1N1CS BHL			R22E R22E			
43-047-52377	NBU	1022-1N4BS BHL			R22E R22E			
43-047-52378	NBU	1022-1N4CS BHL			R22E R22E			
43-047-52381 WELL PAD - NI					R22E R22E			
	-	1022-1P1BS			R22E R22E			
43-047-52380	NBU	1022-1P4BS BHL			R22E R22E			
43-047-52383	NBU	1022-104CS BHL			R22E R22E			
43-047-52385	NBU	1022-1P4CS BHL			R22E R22E			

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The NBU 1022-25D2DS, 43-047-52298, is being permitted to target productive horizons below the unitized zone of the Natural Buttes Unit as defined in Section 3 of said agreement. We recommend not approving commingling of production with these zones and the unitized zones of the Natural Buttes Unit until this matter has been resolved by the BLM's Utah State Office.

This office has no other objection to permitting the wells at this time.

Michael L. Coulthard Management, ou=Branch of Minerals, email=Michael Coulthardelmgov, c=US

Digitally signed by Michael L. Coulthard DN: cn=Michael L. Coulthard, o=Bureau of Land Date: 2012.02.10 08:36:59 -07'00'

bcc: File - Natural Buttes Unit Division of Oil Gas and Mining Central Files Agr. Sec. Chron

Fluid Chron

MCoulthard:mc:2-10-12

# **WORKSHEET** APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED: 2/3/2012** API NO. ASSIGNED: 43047523670000

WELL NAME: NBU 1022-104BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6086

**CONTACT:** Gina Becker

PROPOSED LOCATION: NWSE 01 100S 220E **Permit Tech Review:** 

> **SURFACE: 1838 FSL 2234 FEL Engineering Review:**

> **BOTTOM: 0417 FSL 1804 FEL Geology Review:**

**COUNTY: UINTAH** 

**LATITUDE**: 39.97575 LONGITUDE: -109.38693 UTM SURF EASTINGS: 637743.00 NORTHINGS: 4426312.00

FIELD NAME: NATURAL BUTTES LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-011336 PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal **COALBED METHANE: NO** 

**RECEIVED AND/OR REVIEWED: LOCATION AND SITING:** 

✓ PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: FEDERAL - WYB000291

**Potash** R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit** 

Board Cause No: Cause 173-14 Water Permit: 43-8496

Effective Date: 12/2/1999 **RDCC Review:** 

Siting: Suspends General Siting Fee Surface Agreement

✓ Intent to Commingle R649-3-11. Directional Drill

**Commingling Approved** 

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason

API Well No: 43047523670000



# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

# Permit To Drill

\*\*\*\*\*

Well Name: NBU 1022-104BS API Well Number: 43047523670000 Lease Number: UTU-011336

Surface Owner: FEDERAL Approval Date: 2/15/2012

#### **Issued to:**

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

# Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### **Commingle:**

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

# Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

API Well No: 43047523670000

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

# **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

# Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
  - Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

OCT 2 0 2011

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

5. Lease Serial No. UTU011336

6	If Indian	Allotton or Trib	NT.

APPLICATION FOR PERMIT	TO DRILL OR REENTER UIRIT	6. If Indian, Allottee or Tri	be Name
1a. Type of Work: ☑ DRILL ☐ REENTER		7. If Unit or CA Agreemen UTU63047A	t, Name and No.
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Of	ther ☐ Single Zone ☑ Multiple Zone	8. Lease Name and Well N NBU 1022-104BS	0.
2. Name of Operator Contact: KERR-MCGEE OIL & GAS ONSHORMail: GINA B	GINA T BECKER BECKER@ANADARKO.COM	9. API Well No. 42-047:5	2367
3a. Address P.O. BOX 173779 DENVER, CO 80202-3779	3b. Phone No. (include area code) Ph: 720-929-6086 Fx: 720-929-7086	10. Field and Pool, or Explo NATURAL BUTTES	oratory
4. Location of Well (Report location clearly and in accorded	ance with any State requirements.*)	11. Sec., T., R., M., or Blk.	and Survey or Area
At surface NWSE 1838FSL 2234FEL	39.975733 N Lat, 109.386780 W Lon	Sec 1 T10S R22E M	ler SLB
At proposed prod. zone SWSE 471FSL 1804FEL 3	39.971827 N Lat, 109.385267 W Lon		
14. Distance in miles and direction from nearest town or post APPROXIMATELY 46 MILES SOUTH OF VERI	office* NAL, UTAH	12. County or Parish UINTAH	13. State UT
<ol> <li>Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)</li> <li>417</li> </ol>	16. No. of Acres in Lease 522.84	17. Spacing Unit dedicated	to this well
<ol> <li>Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.</li> </ol>	19. Proposed Depth	20. BLM/BIA Bond No. on	file
525	8716 MD 8427 TVD	WYB000291	
21. Elevations (Show whether DF, KB, RT, GL, etc. 5083 GL	22. Approximate date work will start 03/01/2012	23. Estimated duration 60-90 DAYS	
	24. Attachments		
The following, completed in accordance with the requirements o	f Onshore Oil and Gas Order No. 1, shall be attached to the	his form:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Systs SUPO shall be filed with the appropriate Forest Service Off</li> </ol>	em Lands, the fice).  4. Bond to cover the operation Item 20 above).  5. Operator certification 6. Such other site specific infeauthorized officer.		- `
25. Signature (Electronic Submission)	Name (Printed/Typed) GINA T BECKER Ph: 720-929-6086		Date 10/12/2011
Title REGULATORY ANALYST II			
Approved by (Signature)	Name (Printed/Typed) Jerry Kenczka		<sup>D</sup> JUN 2 7 20
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFIC	E	
Application approval does not warrant or certify the applicant holoperations thereon.  Conditions of approval, if any, are attached.			licant to conduct
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, n States any false, fictitious or fraudulent statements or representati	nake it a crime for any person knowingly and willfully to ons as to any matter within its jurisdiction.	make to any department or age	ncy of the United

Additional Operator Remarks (see next page)

RECEIVED

Electronic Submission #120023 verified by the BLM Well Information System For KERR-MCGEE OIL & GAS ONSHORE, sent to the Vernal

AUS 1 0 2012



**NOTICE OF APPROVAL** CONDITIONS OF APPROVAL ATTACHED DIV. OF OIL, GAS & MINING

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

171 RROOBS AS

APD Posted intelli



# UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE** 170 South 500 East

**VERNAL, UT 84078** 

(435) 781-4400



# CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

Kerr McGee Oil & Gas Onshore

API No:

NBU 1022-104BS 43-047-52367

Location:

NWSE, Sec. 1, T10S, R22E

Lease No: Agreement: UTU-011336 **Natural Buttes** 

**OFFICE NUMBER:** 

(435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

# A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

# **NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to:  blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)		Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 8 Well: NBU 1022-104BS 6/19/2012

# SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

# Site Specific COA's

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horse power must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.
- The following would be used as standard operating procedures: Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring, Glycol Dehydration and Amine Unites, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.
- All reclamation will comply with the Green River Reclamation Guidelines.
- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established.
- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an
  integrated pest management program is applicable, coordination has been undertaken with the
  state and local management program (if existing). A copy of the pest management plan will be
  submitted for each project.
- A pesticide use proposal (PUP) will be obtained for the project.

Page 3 of 8 Well: NBU 1022-104BS 6/19/2012

- A permitted paleontologist is to be present to monitor construction at well pads CIGE 31 (AKA NBU 1022-1E1) and NBU 1022-1I during all surface disturbing actives: examples include the following building of the well pad, access road, and pipelines.
- The best method to avoid entrainment is to pump from an off-channel location one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.
- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
  - a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes;
  - b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (April 1 to August 31); and
  - c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.
- Screen all pump intakes with 3/32 inch mesh material.
- Approach velocities for intake structures will follow the National Marine Fisheries Service's
  document "Fish Screening Criteria for Anadromous Salmonids". For projects with an in-stream
  intake that operate in stream reaches where larval fish may be present, the approach velocity will
  not exceed 0.33 feet per second (ft/s).
- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:

Northeastern Region 152 East 100 North, Vernal, UT 84078 Phone: (435) 781-9453

Kerr McGee can only use the following water source:
 Permit # 49-2307 JD Field Services Green River-Section 15, T2N, R22E

The following measures are required by and have been committed to by Anadarko for all areas where surface disturbing activities cannot be avoided by the required 300 foot buffer from identified Uinta Basin hookless cactus individuals.

- Silt fencing will be used to protect populations within 300 feet of surface disturbing activities that are downslope or downwind of the surface disturbance
- A qualified botanist will be on site to monitor the surface-disturbing activities.
- Dust abatement will occur and will be done using only water.
- All cacti within 300 feet will be flagged immediately prior to surface-disturbing activities are completed.
- Pipelines will be located to the far side of the ROW to maximize distance from cacti.

Page 4 of 8 Well: NBU 1022-104BS 6/19/2012

 Project personnel associated with construction activities would be instructed to drive a speed limit of 15 miles per hour on unpaved roads and to remain on the existing roads and approved ROW at all times.

To maintain compliance with current cactus survey protocols, the following measures will be required.

- If construction does not occur within 4 years of the original survey date, new 100% clearance surveys will be required.
- Prior to construction within 4 years of the original survey date, a spot check survey will be required during the year of construction. KMG and their respective 3<sup>rd</sup> party surveyor will refer to the current Sclerocactus Spot Check Survey Methods, to determine site specific survey distances and intensity levels.
- Spot check reports will be reported to the BLM and the US Fish and Wildlife Service.
- Construction will not commence until written approval is received from the BLM.

Discovery Stipulation: Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Pariette cactus or Uinta Basin hookless cactus is anticipated as a result of project activities.

Page 5 of 8 Well: NBU 1022-104BS

6/19/2012

# DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- Gamma ray Log shall be run from Total Depth to surface.
- CBL will be run from TD to TOC.

#### Variances Granted:

### Air Drillina

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the will bore. Variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 40' from the well bore.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for the kill medium and will utilize a skid pump near the reserve pit to supply the water to the well bore if necessary.
- Automatic igniter. Variance granted for igniter due to there being no productive formations encountered while air drilling.
- FIT Test. Variance granted due to well-known geology and the problems that can occur with the FIT Test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

# DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a

Page 6 of 8 Well: NBU 1022-104BS 6/19/2012

test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the <u>top of cement</u> and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM\_UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 7 of 8 Well: NBU 1022-104BS 6/19/2012

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:
  - o Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - o Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

Page 8 of 8 Well: NBU 1022-104BS 6/19/2012

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
  Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
  future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
  BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
  hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
  be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office
  Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in
  order that a representative may witness plugging operations. If a well is suspended or abandoned,
  all pits must be fenced immediately until they are backfilled. The "Subsequent Report of
  Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of
  the well bore, showing location of plugs, amount of cement in each, and amount of casing left in
  hole, and the current status of the surface restoration.

Sundry Number: 29757 API Well Number: 43047523670000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-011336
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-104BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047523670000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	PHO n Street, Suite 600, Denver, CO, 80217 37	<b>ONE NUMBER:</b> 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL	COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: 0	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
MIRU TRIPLE A BU RAN 14" 36.7# SCHI	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF	CTOR HOLE TO 40'. CMT W/28 SX READY	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: Pepths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 06, 2012
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Cara Mahler SIGNATURE N/A	720 929-6029	Regulatory Analyst I  DATE 9/5/2012	

Print Form

# **BLM - Vernal Field Office - Notification Form**

•	rator <u>KERR-McGEE OIL &amp; GAS</u> ( mitted By <u>CARA MAHLER</u> Phon				
	Name/Number NBU 1022-104B		. <u>720.</u>	<u>929.0029                                </u>	
	Qtr <u>NWSE</u> Section 1 To		<u>os</u> R	ange 22E	
	se Serial Number <u>UTU011336</u>				
API	Number <u>4304752367</u>				
_	d Notice – Spud is the initial sp below a casing string.	oudding o	f the we	ll, not drilling	
	Date/Time <u>08/29/2012</u> <u>17:</u>	:00 HRS	AM 🗌	PM 🗌	
Casi time	ng – Please report time casing s. Surface Casing Intermediate Casing Production Casing Liner Other	run start	s, not ce	ementing	
	Date/Time <u>10/09/2012</u> <u>08</u>	3:00 HRS	AM 🔲	PM 🗌	
BOP	E Initial BOPE test at surface ca BOPE test at intermediate cas 30 day BOPE test Other			RECEIVI AUG 2 8 20 DIV. OF OIL, GAS &	012
	Date/Time		AM 🗌	РМ 🔲	
Rem	arks estimated date and time. Please c	ONTACT KENN	GATHINGS A	AT	
435.82	8.0986 OR LOVEL YOUNG AT 435.781.7051				

#### STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

# **ENTITY ACTION FORM**

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. Box 173779

city DENVER

state CO zip 80217

Phone Number:

(720) 929-6029

#### Wall 4

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4304739312	NBU 1022-1J4BS		NWSE	1	108	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			tity Assignment Effective Date	
B	99999	2900		8/30/2012		916	N 13013
	U BUCKET RIG.	1000000000		USMI	νD		

SPUD WELL LOCATION ON 8/30/2012 AT 14:00 HRS. BHL:

#### Well 2

API Number	Well	l Name	QQ	Sec	Twp	Rng	County
4304752362	NBU 1022-101BS		NWSE	1	108	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	pud Da	te		ty Assignment fective Date
В	99999	3900	8	/31/201	2	91:	20 /2012
	J BUCKET RIG.			usm	VD	<u> </u>	20 13373
SPU	D WELL LOCATION O	N 8/31/2012 AT 7:00	HRS. BI	4L: 3	SWS	و	

# Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752367	NBU 1022-10	)4BS	NWSE	1	108	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	pud Da	te		y Assignment fective Date
B	99999	2900	8	/31/201	2	91	20 12012
	BUCKET RIG. WELL LOCATION ON	8/31/2012 AT 10:00	HRS.		<u>aum</u> 2012 :		

#### **ACTION CODES:**

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entit RECENTION
- E Other (Explain in 'comments' section)

SEP 0 6 2012

**CARA MAHLER** 

Name (Please Print)

Signature

**REGULATORY ANALYST** 

9/5/2012

Title

Date

Sundry Number: 31508 API Well Number: 43047523670000

	STATE OF UTAH				FORM 9		
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		3		DESIGNATION AND SERIAL NUMBER:		
SUNDRY NOTICES AND REPORTS ON WELLS					IAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for pro current bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.	deep ntal l	en existing wells below aterals. Use APPLICATION		OF CA AGREEMENT NAME: CAL BUTTES		
1. TYPE OF WELL Gas Well					NAME and NUMBER: 022-104BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.			<b>9. API N</b> 43047	UMBER: 523670000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 8021		ONE NUMBER: 720 929-6		and POOL or WILDCAT:		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL				COUNTY			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: (	HIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Merio	dian:	S	STATE: UTAH			
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE N	ATURE OF NOTICE, REPOR	T, OR C	THER DATA		
TYPE OF SUBMISSION			TYPE OF ACTION				
	ACIDIZE		ALTER CASING		CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME		
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	FRACTURE TREAT		NEW CONSTRUCTION		
			PLUG BACK				
SPUD REPORT	PRODUCTION START OR RESUME	□ F	RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON		
	TUBING REPAIR		/ENT OR FLARE		WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION		APD EXTENSION		
11/2/2012	WILDCAT WELL DETERMINATION		OTHER	отн	ER:		
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show	all pe	rtinent details including dates, d	epths, vo	vlumes, etc.		
No Activity for	the month of October 2012.	. We	ell TD at 2,382.	o	Accepted by the Utah Division of il, Gas and Mining R RECORD ONLY		
					November 02, 2012		
NAME (PLEASE PRINT) Lindsey Frazier	<b>PHONE NUMB</b> 720 929-6857	ER	TITLE Regulatory Analyst II				
SIGNATURE N/A			DATE 11/2/2012				
1 13//3			11/2/2012				

Sundry Number: 32649 API Well Number: 43047523670000

	STATE OF UTAH				FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN	-	i	5.LEASE I	DESIGNATION AND SERIAL NUMBER: 1336
SUNDRY NOTICES AND REPORTS ON WELLS					AN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.	deep ontal l	en existing wells below aterals. Use APPLICATION		CA AGREEMENT NAME: AL BUTTES
1. TYPE OF WELL Gas Well					NAME and NUMBER: 22-104BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			<b>9. API NU</b> 430475	MBER: 23670000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 8021		<b>NE NUMBER:</b> 9 720 929-6		and POOL or WILDCAT: AL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Merio	dian: \$	s	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NA	ATURE OF NOTICE, REPOR	T, OR 01	THER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		LITER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	□ c	HANGE TUBING		CHANGE WELL NAME
	CHANGE WELL STATUS	□ c	COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ F	RACTURE TREAT		NEW CONSTRUCTION
		LUG AND ABANDON		PLUG BACK	
SPUD REPORT	PRODUCTION START OR RESUME	□ R	RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	□s	IDETRACK TO REPAIR WELL		TEMPORARY ABANDON
	TUBING REPAIR	□ v	ENT OR FLARE		WATER DISPOSAL
DRILLING REPORT     Report Date:	WATER SHUTOFF	□ s	I TA STATUS EXTENSION		APD EXTENSION
12/3/2012	WILDCAT WELL DETERMINATION		THER	OTHE	
44 DESCRIPE PROPOSED OR			····		!
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  No Activity for the month of November 2012. Well TD at 2,382.  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY  December 03, 2012					
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMB	BER	TITLE Regulatory Analyst II		
SIGNATURE	720 929-6857		DATE		
N/A			12/3/2012		

Sundry Number: 34344 API Well Number: 43047523670000

	STATE OF UTAH				FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING					<b>DESIGNATION AND SERIAL NUMBER:</b> 11336
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF IND	IAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly eenter plugged wells, or to drill horizon for such proposals.				r CA AGREEMENT NAME: AL BUTTES
1. TYPE OF WELL Gas Well					NAME and NUMBER: 022-104BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			<b>9. API NI</b> 43047	JMBER: 523670000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021				and POOL or WILDCAT: AL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL				COUNTY	
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: 0	IIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Meri	dian:	S	STATE: UTAH	
11. CHECH	K APPROPRIATE BOXES TO INDICA	TE N	ATURE OF NOTICE, REPOR	T, OR C	THER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		ALTER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ <b>F</b>	FRACTURE TREAT		NEW CONSTRUCTION
	OPERATOR CHANGE		TYPE OF ACTION  ALTER CASING CHANGE TUBING COMMINGLE PRODUCING FORMATIONS FRACTURE TREAT PLUG AND ABANDON RECLAMATION OF WELL SITE SIDETRACK TO REPAIR WELL VENT OR FLARE SI TA STATUS EXTENSION OTHER  Pertinent details including dates, depression Well TD at 2,382	П	PLUG BACK
	PRODUCTION START OR RESUME				RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:					
	REPERFORATE CURRENT FORMATION				TEMPORARY ABANDON
✓ DRILLING REPORT	L TUBING REPAIR				WATER DISPOSAL
Report Date: 2/4/2013	WATER SHUTOFF	∟ s	SI TA STATUS EXTENSION		APD EXTENSION
2/4/2010	WILDCAT WELL DETERMINATION		OTHER	ОТНІ	ER:
No Activity for	the month of January 2013	3. W	ell TD at 2,382	FOI	Accepted by the Utah Division of il, Gas and Mining R RECORD ONLY February 08, 2013
NAME (PLEASE PRINT) Lindsey Frazier	<b>PHONE NUME</b> 720 929-6857	5EK	TITLE Regulatory Analyst II		
SIGNATURE N/A			<b>DATE</b> 2/4/2013		

RECEIVED: Feb. 04, 2013

Sundry Number: 35196 API Well Number: 43047523670000

	STATE OF UTAH			FORM	
ı	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN			5.LEASE DESIGNATION AND SERIAL NUMBER UTU-011336	
SUNDR	Y NOTICES AND REPORTS	ON WEL	LS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 1022-104BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047523670000	
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	<b>PHONE NU</b> 7 3779		9. FIELD and POOL or WILDCAT: 65NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Merio	dian: S		STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURI	E OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION		T	YPE OF ACTION		
	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show the month of February 2013	FRACTURE PLUG AND RECLAMA SIDETRAC VENT OR F SI TA STAT	TUBING  LE PRODUCING FORMATIONS  E TREAT  D ABANDON  TION OF WELL SITE  K TO REPAIR WELL  FLARE  TUS EXTENSION  details including dates, of	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL  APD EXTENSION  OTHER:  depths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining  FOR RECORD ONLY  March 04, 2013	
NAME (DI EACE PRINT)	DUONE NUMB	ED   TITI 1			
NAME (PLEASE PRINT) Laura Abrams	<b>PHONE NUMB</b> 720 929-6356	Regu	ulatory Analyst II		
<b>SIGNATURE</b> N/A		<b>DATE</b> 3/4/	<u> </u>		

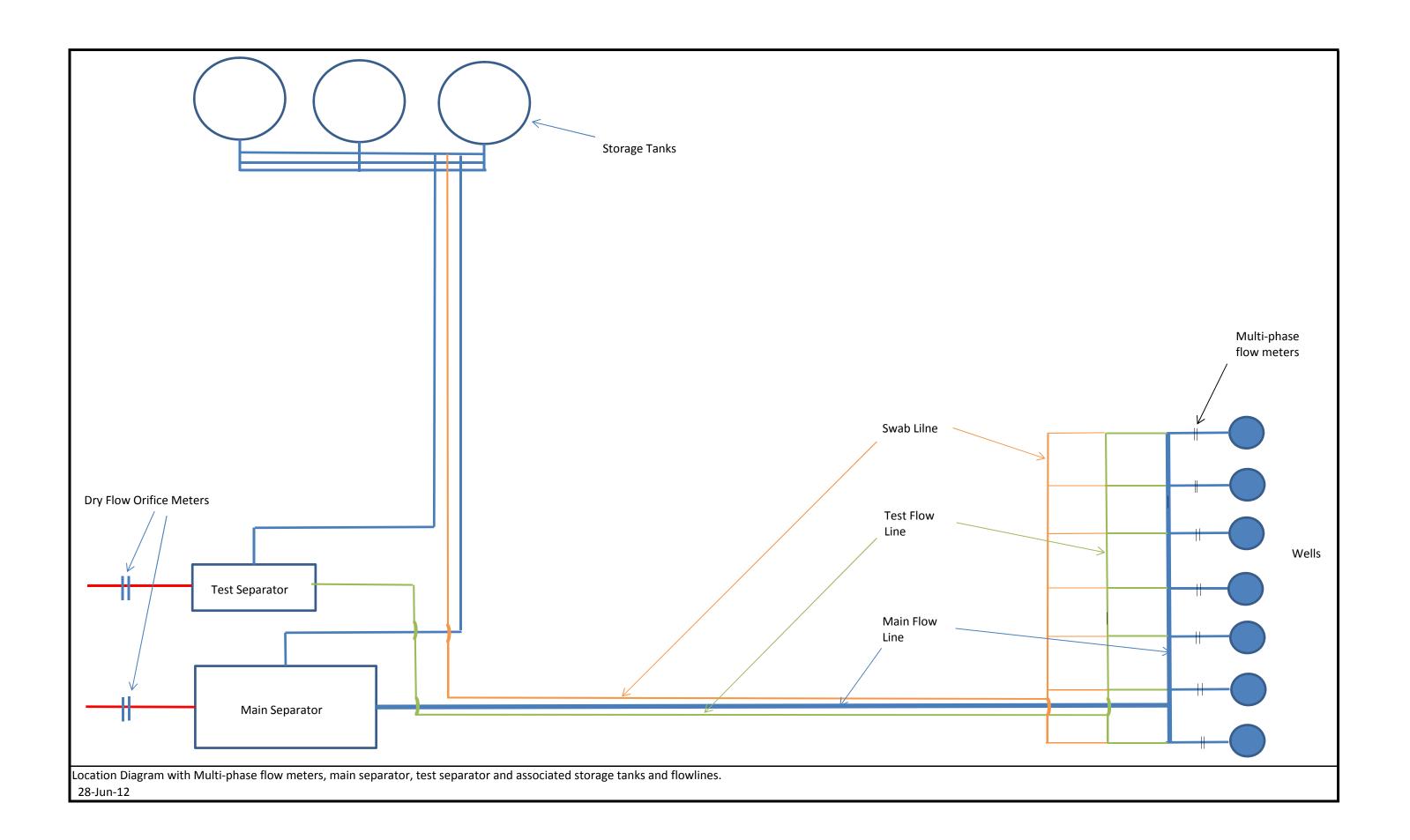
Sundry Number: 34702 API Well Number: 43047523670000 FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9		
	DIVISION OF OIL, GAS, AND MININ	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-011336		
	RY NOTICES AND REPORTS ON		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-104BS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047523670000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18tl	Ph h Street, Suite 600, Denver, CO, 80217 3	HONE NUMBER: 779 720 929-6	9. FIELD and POOL or WILDCAT: 5MATERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSI	HIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Meridiar	ı: S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	COMPLETED OPERATIONS. Clearly show all p		CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL  APD EXTENSION  OTHER: Multi-Phase Meter  LIEPTHS, Volumes, etc.  Approved by the		
The operator is requesting the option to measure total gas produced from a pad, and to allocate gas production to the individual wells on the pad based upon multi-phase flow measurement at each well and periodic well tests. Please see the attached documents. Thank you. Pad Well API NBU 1022-01J NBU 1022-1J1BS 4304752359 NBU 1022-01J NBU 1022-01J NBU 1022-1J1CS 4304752384 NBU 1022-01J NBU 1022-1J4CS 4304752366 NBU 1022-01J NBU 1022-1O1BS 4304752362 NBU 1022-01J NBU 1022-1J4BS 4304739312  Approved by the Utah Division of Oil, Gas and Mining  March 05, 2013  By:  By:  Date:  March 05, 2013  By:  Date:  Date:  March 05, 2013  By:  Date:  Date:  March 05, 2013  By:  Date:  Date					
NAME (PLEASE PRINT) Lindsey Frazier	<b>PHONE NUMBER</b> 720 929-6857	TITLE Regulatory Analyst II			
SIGNATURE N/A		DATE 2/13/2013			

Sundry Number: 34702 API Well Number: 43047523670000

The fluids from each well will be measured utilizing a multi-phase flow meter and then directed to a common separator for all wells on the pad. Liquids would be directed to tanks and the gas from all the wells measured through a calibrated orifice meter. The volume of gas measured through this meter, plus fuel gas consumed on location, will be the volume of gas that is produced from the pad. Gas volume for each individual well on the pad will be based on an allocation formula utilizing the total pad volume measured plus fuel gas consumed and the calculated volume from each well utilizing the multi-phase flow meters. The multi-phase flow meter volume calculation will be calibrated by periodic individual well tests.

RECEIVED: Feb. 13, 2013



Sundry Number: 36235 API Well Number: 43047523670000

	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MII		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-011336			
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-104BS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047523670000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 8021	<b>PHONE NUMBER:</b> 7 3779 720 929	9. FIELD and POOL or WILDCAT: -65NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Meri	dian: S	STATE: UTAH			
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPO	PRT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT     Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
4/3/2013		STA STATUS EXTENSION				
	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  No Activity for the month of March 2013. Well TD at 2,393  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY  April 03, 2013						
NAME (PLEASE PRINT) Teena Paulo	<b>PHONE NUME</b> 720 929-6236	BER TITLE Staff Regulatory Specialis				
SIGNATURE N/A		<b>DATE</b> 4/3/2013				
L + *// *		1/ 5/ <del>-</del> 5 1 5				

### State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# XTREME 12 Submitted By DALTON KING Phone Number 435- 828-0985 Well Name/Number NBU 1022-104BS Qtr/Qtr NE/SE Section 1 Township 10 S Range 22E Lease Serial Number UTU 011336 API Number 43-047-52367
<u>Casing</u> – Time casing run starts, not cementing times.
Production Casing Other
Date/Time AM PM
BOPE Initial BOPE test at surface casing point Other
Date/Time <u>4/11/2013</u> <u>03:00</u> AM ⊠ PM □
RECEIVED  APR 1 6 2013  Location To: NBU 1022-104BS  DIV. OF OIL, GAS & MINING
Date/Time <u>4/10/2013</u> <u>23:00</u> AM ☐ PM ⊠
Remarks TIME IS ESTIMATED

### State of Utah - Notification Form

Operator <u>Anadarko Petroleum</u> Rig Name/# <u>XTREME 12</u>
Submitted By <u>JOE MADSEN</u> Phone Number <u>435- 828-0985</u>
Well Name/Number <u>NBU 1022-104BS</u>
Qtr/Qtr <u>NE/SE</u> Section <u>1</u> Township <u>10 S</u> Range 22E
Lease Serial Number <u>UTU 011336</u>
API Number 43-047-52367

<u>Casi</u>	ng – Time casing run starts, not cementing times.	
	Production Casing Other	
	Date/Time 4/16/2013 12:00 AM	РМ
BOP	<u>E</u> Initial BOPE test at surface casing point Other	
	Date/Time AM PM	RECEIVED APR 1 6 2013
	Move ation To: <u>NBU 1022-104BS</u>	DIV. OF OIL, GAS & MINING
	Date/Time <u>4/10/2013</u> <u>23:00</u> AM ☐ PM ⊠	
Rem	narks <u>TIME IS ESTIMATED</u>	

Sundry Number: 37379 API Well Number: 43047523670000

	STATE OF UTAH				FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI			5.LEASE DESIGNATION AND UTU-011336	SERIAL NUMBER:
SUNDR	Y NOTICES AND REPORTS	S ON V	WELLS	6. IF INDIAN, ALLOTTEE OR	TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA AGREEMENT NATURAL BUTTES	NAME:
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER NBU 1022-104BS	₹:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047523670000	
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		<b>NE NUMBER:</b> 9 720 929-6	9. FIELD and POOL or WILD 5NATURAL BUTTES	CAT:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: (	HIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Mer	ridian: S	S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NA	ATURE OF NOTICE, REPOR	T, OR OTHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE	Па	LTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	С	HANGE TUBING	CHANGE WELL NAME	
	CHANGE WELL STATUS	□ c	OMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FF	RACTURE TREAT	NEW CONSTRUCTION	
	OPERATOR CHANGE	□ рі	LUG AND ABANDON	PLUG BACK	
SPUD REPORT	PRODUCTION START OR RESUME	□ R	ECLAMATION OF WELL SITE	RECOMPLETE DIFFEREN	T FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION		IDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR		ENT OR FLARE	WATER DISPOSAL	
✓ DRILLING REPORT	WATER SHUTOFF		I TA STATUS EXTENSION	APD EXTENSION	
Report Date: 5/3/2013			I TA STATUS EXTENSION		
	WILDCAT WELL DETERMINATION	o	THER	OTHER:	
	COMPLETED OPERATIONS. Clearly shove or the month of April 2013.			Accepted by the Utah Division Oil, Gas and Mir FOR RECORI May 09, 2013	of ning D ONLY
NAME (PLEASE PRINT) Teena Paulo	PHONE NUM 720 929-6236	IBER	TITLE Staff Regulatory Specialist		
SIGNATURE	.20 020 0200		DATE		
N/A			5/3/2013		

Sundry Number: 38806 API Well Number: 43047523670000

	STATE OF UTAH		FORM 9
1	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-011336
SUNDR	RY NOTICES AND REPORTS ON	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	oposals to drill new wells, significantly dee reenter plugged wells, or to drill horizonta n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-104BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047523670000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18tl	PH h Street, Suite 600, Denver, CO, 80217 37	HONE NUMBER: 779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: (	HIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Meridian	n: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show all prompleting the well. Well TD and the completing the well.		CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: Depths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 11, 2013
NAME (PLEASE PRINT)	PHONE NUMBER		
Luke Ùrban SIGNATURE	720 929-6501	Regulatory Specialist  DATE	
N/A		6/5/2013	

Sundry Number: 39049 API Well Number: 43047523670000

	STATE OF UTAH			FORM 9
1	DEPARTMENT OF NATURAL RESOLUTION OF OIL, GAS, AND I		i	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-011336
SUNDR	RY NOTICES AND REPORT	S ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	oposals to drill new wells, significan reenter plugged wells, or to drill hou n for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 1022-104BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			<b>9. API NUMBER:</b> 43047523670000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80		<b>NE NUMBER:</b> 9 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E M	leridian:	S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDI	CATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
The subject we	□ ACIDIZE □ CHANGE TO PREVIOUS PLANS □ CHANGE WELL STATUS □ DEEPEN □ OPERATOR CHANGE ✓ PRODUCTION START OR RESUME □ REPERFORATE CURRENT FORMATION □ TUBING REPAIR □ WATER SHUTOFF □ WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly shell was placed on production history will be submitted report.	ow all perion on	6/11/2013. The	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: Pepths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 13, 2013
NAME (PLEASE PRINT)	PHONE NU	IMBER	TITLE	
Teena Paulo SIGNATURE	720 929-6236		Staff Regulatory Specialist  DATE	
N/A			6/13/2013	

API Well Number: 43047523670000

FORM APPROVED Form 3160-4 **UNITED STATES** OMB No. 1004-0137 (August 2007) DEPARTMENT OF THE INTERIOR Expires: July 31, 2010 BUREAU OF LAND MANAGEMENT Lease Serial No. UTU011336 WELL COMPLETION OR RECOMPLETION REPORT AND LOG 1a. Type of Well Oil Well **⊠** Gas Well 6. If Indian, Allottee or Tribe Name □ Dry □ Other b. Type of Completion New Well ■ Work Over Deepen □ Plug Back □ Diff. Resvr. Unit or CA Agreement Name and No. UTU63047A Other 2. Name of Operator Contact: TEENA PAUL KERR MCGEE OIL&GAS ONSHOREE-Mail: teena.paulo@anadarko.com Contact: TEENA PAULO Lease Name and Well No. NBU 1022-104BS PO BOX 173779 3a. Phone No. (include area code) 9. API Well No. DENVER, CO 80217 Ph: 720-929-6236 43-047-52367 10. Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with Federal requirements)\* NATURAL BUTTES NWSE 1838FSL 2234FEL 39.975733 N Lat, 109.386780 W Lon At surface 11. Sec., T., R., M., or Block and Survey or Area Sec 1 T10S R22E Mer SLB At top prod interval reported below SWSE 412FSL 1810FEL 12. County or Parish State SWSE 419FSL 1814FEL UINTÁH UT 14. Date Spudded 08/31/2012 15. Date T.D. Reached 16. Date Completed 17. Elevations (DF, KB, RT, GL)\* D & A Ready to Prod. 06/11/2013 04/15/2013 □ D & A 5092 KB 18. Total Depth: MD 8774 19. Plug Back T.D.: MD 8707 20. Depth Bridge Plug Set: MD TVD 8500 TVD 8433 TVD **⊠** No Type Electric & Other Mechanical Logs Run (Submit copy of each) CBL/GR/CCL/TEMP Was well cored? 22. Yes (Submit analysis) Was DST run? ▼ No Yes (Submit analysis) ▼ Yes (Submit analysis) Directional Survey?  $\square$  No 23. Casing and Liner Record (Report all strings set in well) Bottom Stage Cementer No. of Sks. & Slurry Vol. Hole Size Size/Grade Wt. (#/ft.) Cement Top\* Amount Pulled (MD) (MD) Depth Type of Cement (BBL) 8.625 IJ-55 11.000 28.0 n 2362 900 7.875 4.500 I-80 11.6 15 8754 1500 670 24. Tubing Record Size Depth Set (MD) Packer Depth (MD) Size Depth Set (MD) Packer Depth (MD) Size Depth Set (MD) Packer Depth (MD) 8140 25. Producing Intervals 26. Perforation Record Formation Top Bottom Perforated Interval Size No. Holes Perf. Status A) 5476 0.360 56 **OPEN** WASATCH 6392 5476 TO 6392 B) **MESAVERDE** 6766 8565 6766 TO 8565 0.360 189 **OPEN** C) D) 27. Acid, Fracture, Treatment, Cement Squeeze, Etc Depth Interval Amount and Type of Material PUMP 12,947 BBLS SLICK H2O & 287,631 LBS 30/50 OTTAWA SAND 28. Production - Interval A Oil Gravity Produced Date Tested Production BBL MCF BBL Corr. API Gravity 06/11/2013 06/18/2013 24 23.0 2651.0 FLOWS FROM WELL 0.0 Choke Tbg. Press Csg. 24 Hr. Oil Water Gas:Oil Well Status MCF BBL 1646 Rate BBL Ratio Size Flwg. Press 20/64 2193.0 23 2651 0 **PGW** 28a. Production - Interval B Water Gas Date First Oil Gas Oil Gravity Production Method Test Hours MCF BBL BBL Corr. API Produced Date Tested Production Gravity

Csg.

Press

24 Hr.

Rate

Oil

BBL

Choke

Size

Tbg. Press

Flwg.

Gas

Gas:Oil

Ratio

Well Status

Water

Produced I Choke T Size F S 28c. Producti Date First T	Test Date  Tbg. Press. Flwg.	Hours Tested	Test Production	Oil	_							
Size F S  28c. Producti Date First T		I	Production	BBL	Gas MCF	Water Oil Gravity Gas Corr. API Gravit				Production Method		
Date First T	riwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well S	status			
		1 D		1								
Produced I	Гest Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravit	у	Production Method		
Size F	Гbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well S	status			
29. Disposition	on of Gas(S	old, used j	for fuel, ven	ted, etc.)								
30. Summary Show all tests, incl and recov	important z luding depth	ones of po	prosity and c	ontents the	reof: Corec ne tool ope	l intervals an n, flowing an	d all drill-stem ad shut-in pressures		31. For	mation (Log) Ma	ırkers	
Fo	rmation		Top	Botton	ı	Descript	ions, Contents, etc.		Name Me			
32. Additiona	al remarks (	include pl	ugging proc	edure):					MA WA	RD'S NEST HOGANY ASATCH SAVERDE		1561 1903 4343 6453
The first of the su ft; LTC c history, p	210 ft of thurface hole say was rur perforation	e surface was drille from 50 report ar	e hole was ed with an	drilled with 11 inch bit. 54 ft. Atta	DQX csg	inch bit. Th g was run fro e chronolog	ne remainder om surface to 5059 ical well					
33. Circle end			(1 full set re	ea'd.)		2. Geologi	ic Report	3	DST Rej	nort	4. Directio	nal Survey
		_	and cement	•	n	6. Core A	•		Other:			

Signature (Electronic Submission) Date 07/10/2013

				U	S ROC	KIES R	EGION	
				Opera	tion S	Summa	ary Report	
Well: NBU 1022-	-104BS BLACK						Spud Date: 9/2	25/2012
Project: UTAH-U	INTAH		Site: NBL	J 1022-01	J PAD			Rig Name No: PROPETRO 11/11, XTC 12/12
Event: DRILLING	Event: DRILLING Start			e: 9/9/201	12			End Date: 4/17/2013
	Active Datum: RKB @5,092.00usft (above Mean Sea Level)					0/S/22/E/	1/0/0/26/PM/S/18	38/E/0/2234/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/25/2012	13:30 - 16:00 16:00 - 22:00	2.50	MIRU	01	B A	P Z	(usit)	INSTALL DIVERTER HEAD; RIG UP NOV EQUIPMENT; SPOT IN RIG; CATWALK & PIPE RACKS; RIG UP & PRIME PUMP INSPECT RIG. ( RAIN AND MUD ) ***HYDRAULIC O-RING FAILURE
	22:00 - 22:30	0.50	DRLSUR	06	A	P		PICK UP 12.25" BIT & 8" MUD MOTOR & TIH
	22:30 - 23:30	1.00	DRLSUR	02	В	Р		DRL F/44' - T/210' ( 166' @ 166' ROP ) W.O.B 18/20K RPM 45 POWERHEAD / 83 MUD MOTOR UP/DWN/ROT 22/20/20 PSI ON/OFF 650/450 M.W. 8.4# VIS 27 TORQUE ON/OFF 3000/900 NOV-ONLINE
	23:30 - 0:00 0:00 - 1:30	0.50	DRLSUR	06	A	P		TOOH WITH #1 BHA
9/26/2012	1:30 - 12:00	1.50 10.50	DRLSUR DRLSUR	06 02	В	P P		TIH WITH #2 BHA W/11" BIT  DRL F/210' - T/1570' ( 1360' @ 129.5' ROP ) W.O.B.  18/20K RPM  RPM 45 POWERHEAD / 83 MUD MOTOR  UP/DWN/ROT 67/48/54 ~ 13K DRAG  PSI ON/OFF 970/830  M.W. 8.4# VIS 27  491 GPM PUMP RATE / 2420 CFM AIR RATE  TORQUE ON/OFF 3000/1500  NOV-ONLINE  HOLE CONDITION LOST RETURNS @ 1300'  3.92' HIGH 5.61' RIGHT OF LINE
	12:00 - 20:30 20:30 - 22:30	8.50	DRLSUR	02	В	Р		DRL F/1570' - T/2382' ( 812' @ 95.5' ) W.O.B. = 18/20K  RPM 45 POWERHEAD / 83 MUD MOTOR  UP/DWN/ROT 85/70/53 ~32K DRAG  PSI ON/OFF 1500/1300  M.W. 8.4# VIS 27  491 GPM PUMP RATE / 2420 CFM AIR RATE  TORQUE ON/OFF 3100/1500  NOV-ONLINE  HOLE CONDITION LOST RETURNS @ 1300' 1' HIGH .50' LEFT OF LINE  SLID 457' / 19.5%
	20:30 - 22:30	2.00	DRLSUR	05	C	P		CIRCULATE PRIOR TO TRIP
9/27/2012	0:00 - 2:00	1.50 2.00	DRLSUR DRLSUR	06 06	A A	P P		LDDS, BHA & DIRECTIONAL TOOLS  LDDS, BHA & DIRECTIONAL TOOLS  ( DDS AVING BOWN FOR INCRESTION )
	2:00 - 3:00	1.00	CSGSUR	12	Α	Р		BREAKING DOWN FOR INSPECTION ) MOVE PIPE RACKS AND CATWALK; PULL DIVERTER HEAD; RIG UP TO RUN CASING; MOVE CASING INTO POSITION
	3:00 - 5:00	2.00	CSGSUR	12	С	Р		TIH 53 JOINTS 8 5/8", 28#, J55 CASING SHOE IS AT 2326.4' BAFFLE IS AT 2282.2'
	5:00 - 7:00	2.00	CSGSUR	22	Α	Х		TAGGED UP @ 1300'; HAD TO WORK CSG UP AND DOWN AND WASH WITH 700BBLS

### API Well Number: 43047523670000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-104BS BLACK Spud Date: 9/25/2012 Project: UTAH-UINTAH Site: NBU 1022-01J PAD Rig Name No: PROPETRO 11/11, XTC 12/12 **Event: DRILLING** End Date: 4/17/2013 Start Date: 9/9/2012 UWI: NW/SE/0/10/S/22/E/1/0/0/26/PM/S/1838/E/0/2234/0/0 Active Datum: RKB @5,092.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 7:00 - 8:00 **CSGSUR** 12 Ρ 1.00 С WORKED FREE AND WASHED DOWN TO LAND @ 2326.4' 8:00 - 8:30 0.50 **CSGSUR** 12 Ρ В HOLD SAFETY MEETING; RUN 200' OF 1" TUBING; RIG DOWN MOVE OFF WELL; RIG UP CEMENTERS AND CEMENT HEAD. 8:30 - 13:00 4.50 **CSGSUR** 12 Ε Р RIG UP PRO PETRO PUMP TRUCK; TEST LINES TO 1500 PSI; PUMP 145 BBL'S WATER AHEAD FOLLOWED BY 20 BBL GEL WATER SPACER; PUMP 300SKS CLASS G CMT + 2% CACL2 + 1/4#/ SX FLOCELE @ 15.8 WT & 1.15 YIELD; DROP PLUG & DISPLACE W/ 143.8 BBLS WATER; PLUG DN @ 10:00 09/27/2012; BUMP PLUG W/ 600 PSI; FINAL LIFT = 250 PSI; FLOAT DIDN'T HOLD - HELD PRESSURE ON CSG; NO CIRCULATION & NO CMT TO SURFACE; PUMP 150SX CLASS G CMT @ 15.8 WT & 1.15 YIELD + 4% CACL2 + 1/4# FLOCELE DN 1"; NO CMT TO SURFACE; PUMP 2 MORE TOP OUTS FOR A TOTAL OF 450SX CLASS G CMT @ 15.8 WT & 1.15 YIELD + 4% CACL2 + 1/4# FLOCELE; NO CMT TO SURFACE; RELEASE RIG @ 13:00 09/27/2012; RIG MOVE TO THE NBU 921-22M-GR 10:30 - 11:00 Р 4/11/2013 0.50 MIRU 01 С SKID THE RIG 10' AND CENTER IT UP 11:00 - 12:00 1.00 MIRU 01 В Ρ RIG UP THE FLOW LINE, FLOOR AND SKATE, LEVEL DERRICK, SET CAT WALK, 12:00 - 13:00 1.00 MIRU Р PRE SPUD INSPECTION 23 13:00 - 14:30 1.50 **PRPSPD** 14 Ρ NIPPLE UP THE BOP Α 14:30 - 19:00 **PRPSPD** 4.50 15 Р HOLD SAFETY MEETING. WITH A-1, TEST TOP DRIVE VALVE, I-BOP VALVE, FLOOR VALVE, DART VALVE, PIPE AND BLIND RAMS, INSIDE AND OUTSIDE KILL LINE VALVES INSIDE OUTSIDE CHOKE LINE VALVE, HCR VALVE, CHOKE LINE, CHOKE MANIFOLD VALVES AND CHOKES TO 5000 PSI FOR 10 MINUTES AND 250 PSI FOR 5 MINUTES. TEST ANNULAR TO 2500 PSI FOR 10 MIN AND 250 PSI FOR 5 MINUTES. TESTING CASING TO 1500 PSI FOR 30 MINUTES. 19:00 - 19:30 0.50 PRPSPD SET WEAR BUSHING 14 19:30 - 22:30 3.00 **PRPSPD** 06 Р PICKED UP DIR TOOLS /SCRIBED THE BHA TRIPPED IN THE HOLE WITH THE DIRECTIONAL ASSEMBLY AND THE HEAVY WEIGHT DRILL PIPE.INSTALLED THE DRILLING RUBBER 22:30 - 23:30 1.00 **PRPSPD** 09 SLIPPED AND CUT 45' OF DRILLING LINE 23:30 - 0:00 0.50 **PRPSPD** 06 Α Р TRIPPED IN THE HOLE AND TAGGED CEMENT AT 2220 4/12/2013 0:00 - 0:30 0.50 **PRPSPD** Ρ 2220 06 Α FINISH TRIPPING IN THE HOLE AND TAGGED CEMENT AT 2220' 0:30 - 2:00 1.50 **DRLPRC** 02 F Ρ 2393 DRILL CEMENT AND FLOAT EQUIPMENT 80 STKS

6/19/2013 8:32:35AM 2

360 GPM 40 RPM 12K WOB

				U	S RUC	KIES RE	GION				
				Opera	ation S	Summa	ry Report				
Vell: NBU 1022	-104BS BLACK						Spud Date: 9/2	25/2012			
roject: UTAH-U	JINTAH		Site: NBU	J 1022-01	IJ PAD			Rig Name No: PROPETRO 11/11, XTC 12/12			
vent: DRILLING	 G		Start Date	e· 9/9/201	12			End Date: 4/17/2013			
Active Datum: RKB @5,092.00usft (above Mean Sea Level)						0/S/22/E/1	S/22/E/1/0/0/26/PM/S/1838/E/0/2234/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation			
	2:00 - 5:30	3.50	DRLPRC	02	В	P	2393	DRILL SLIDE F/ 2,393' - 2769' ( 376' @ 107' / HR) WEIGHT ON BIT 18-24 K. AVERAGE WEIGHT ON BIT 24 K. ROTARY RPM 60, MUD MOTOR RPM 123. STROKES PER MINUTE 130 GALLONS PER MINUTE 586. OFF/ON PSI 1700/2000. DIFFERENTIAL 300. TORQUE HIGH/LOW 8000 / 3000 OFF BOTTOM TORQUE 2500 STRING WEIGHT UP/DOWN/ROT 80/60/70. DRAG 10 K. NOV RUNNING 1 CENTRIFUGES ON DEWATER. WT 8.7 VIS 32. ////// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 60 BARRELS LOSSES @ 13 BBL/HR NO FLARE Start:2393 End: 2769 FootageFeet% Total376 Slide10427.66% Rotate27272.34%  TimeMinHrs% Total 2404 Slide751.2531.25% Rotate1652.7568.75%			
	5:30 - 6:00	0.50	DRLPRC	07	Α	Р		2719' Inc 25.77 Azm 144.64 RIG SERVICE DRAW TOOL,TOP DRIVE			

RECEIVED: Aug. 20, 2013

Date   Time   Start-End   (hr)   Phase   Code   Sub   P/U   MD From   (usft)   Operation					<b>.</b>				
Site: NBU 1022-01   PAD					Opera	ition S	summa	ry Report	
Vent: DRILLING  Vent: DRILLING  Vent: DRILLING  Vent: DRILLING  Start Date: 99/2012  End Date: 4/17/2013  End Date: 4/17/2013  Date  Vent: DRILL SLIDE F/ 2769 - 4047 (1278* @ 111.11*) HR)  Bate  Time  Start-End  (hr)  Phase  Code  Sub  P/U  MD From  (ustt)  DRILL SLIDE F/ 2769 - 4047 (1278* @ 111.11*) HR)  WEIGHT ON BIT 18-24 K. AVERAGE WEIGHT ON BIT 24 K.  ROTARY RPM 60,  MUD MOTOR RPM 123.  STROKES PER MINUTE 130  GALLONS PER MINUTE 180,  OFF ONTO PROQUE HIGHLOW 9484 / 4763  OFF BOTTO MOTORQUE 4763  STRING WEIGHT UP/DOWN/ROT 117/71/83. DRAG  34 K.  NOV RUNNING 1 CENTRIFUGES ON DEWATER  WT 38 VIS 32.  ### DRILLING WITH FLOWZAN MUD CHEM ###  PUMP LCM SWEEPS TO HELP WITH LOSSES.  USED 20 BBL-FILLI FOR HOLD VOLUME  60 BARRELS LOSSES @ 13 BBL/HR  NO FLARE  Start.2769  End: 4047  Footage-Feet%  Total 278  Side38830 36%  Rotate89069.64%  TimeMinHrs%  Total 68511.41667  Side2604.3333337.96%  Rotate4257.08333382.04%	/ell: NBU 1022	2-104BS BLACK						Spud Date: 9/2	25/2012
Date   Time	roject: UTAH-l	JINTAH		Site: NBL	J 1022-01	J PAD			Rig Name No: PROPETRO 11/11, XTC 12/12
Date   Time	vent: DRILLIN	G		Start Date	e: 9/9/201	12			End Date: 4/17/2013
Date   Time   Start-End   (hr)   Phase   Code   Sub   P/U   MD From   (usft)   Operation		RKB @5,092.00usft (ab	bove Mean S	Sea	UWI: N	W/SE/0/1	0/S/22/E/1	/0/0/26/PM/S/18	338/E/0/2234/0/0
Start-End   (ivr)   Code   (ustf)	evel)	_		DI		I . I	D#1		
WEIGHT ON BIT 18-24 K. AVERAGE WEIGHT ON BIT 24 K. ROTARY RPM 60, MUD MOTOR RPM 123. STROKES PER MINUTE 130 GALLONS PER MINUTE 586. OFF.ON PSI 1984/1510. DIFFERENTIAL 279. TORQUE HIGHLOW 9484 / 4763 OFF BOTTOM TORQUE 4763 STRING WEIGHT UP/DOWN/ROT 117/71/83. DRAG 34 K. NOV RUNNING 1 CENTRIFUGES ON DEWATER. WT 8.8 VIS 32. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 60 BARRELS LOSSES @ 13 BBL/HR NO FLARE Start:2769 End: 4047 FootageFeet% Total 1278 Silde38830.39% Rotate89969.48%  TimeMinHrs% Total 68511.41667 Silde2604.33333337.99% Rotate4257.08333382.04%  Survey station 3954* 19.50 inc 173.34 azi 3721.73* TVD	Date			Phase	Code		P/U		Operation
line			, ,	DRLPRC	02		P	, ,	WEIGHT ON BIT 18-24 K. AVERAGE WEIGHT ON BIT 24 K. ROTARY RPM 60, MUD MOTOR RPM 123. STROKES PER MINUTE 130 GALLONS PER MINUTE 586. OFF/ON PSI 1964/1510. DIFFERENTIAL 279. TORQUE HIGH/LOW 9484 / 4763 OFF BOTTOM TORQUE 4763 STRING WEIGHT UP/DOWN/ROT 117/71/83. DRAG 34 K. NOV RUNNING 1 CENTRIFUGES ON DEWATER. WT 8.8 VIS 32. ////// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 60 BARRELS LOSSES @ 13 BBL/HR NO FLARE Start:2769 End: 4047 FootageFeet% Total1278 Slide38830.36% Rotate89069.64%  TimeMinHrs% Total 68511.41667 Slide2604.33333337.96% Rotate4257.083333362.04%  Survey station 3954' 19.50 inc 173.34 azi 3721.73' TVD Bit position @ 3954' 60.54' below & 27.77' left of

				_		KIES RI		
				Opera	llion S	umma	ry Report	
	-104BS BLACK						Spud Date: 9/2	
roject: UTAH-L	JINTAH		Site: NBL	1022-01	J PAD			Rig Name No: PROPETRO 11/11, XTC 12/12
vent: DRILLIN	G		Start Date	e: 9/9/201	2			End Date: 4/17/2013
ctive Datum: Revel)	KKB @5,092.00usft (ab	oove Mean S	ea	UWI: N\	N/SE/0/1	0/S/22/E/	1/0/0/26/PM/S/18	338/E/0/2234/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 0:00	6.00	DRLPRC	02	В	P	4047	DRILL SLIDE F/ 4047' TO 4714' ( 667' @ 111' / HR) WEIGHT ON BIT 18-24 K. AVERAGE WEIGHT ON BIT 24 K. ROTARY RPM 65, MUD MOTOR RPM 123. STROKES PER MINUTE 130 GALLONS PER MINUTE 586. OFF/ON PSI 1600/2000. DIFFERENTIAL 329. TORQUE HIGH/LOW 6000 / 2500 OFF BOTTOM TORQUE 2500 STRING WEIGHT UP/DOWN/ROT 125/70/95. DRAG 30 K. NOV RUNNING 1 CENTRIFUGES ON DEWATER. WT 8.9 VIS 32. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 65 BARRELS LOSSES @ 10.8 BBL/HR NO FLARE Start:4047 End: 4714 FootageFeet% Total667 Slide16524.74% Rotate50275.26%  TimeMinHrs% Total 3706.166667 Slide1151.91666731.08% Rotate2554.2568.92%  Survey station 4664' 15.26 inc 179.92 azi 4398.51' TVD

				_				
				Opera	ition S	umma	ry Report	
Well: NBU 1022	-104BS BLACK					Spud Date: 9/2	25/2012	
Project: UTAH-UINTAH Site: N					J PAD			Rig Name No: PROPETRO 11/11, XTC 12/12
Event: DRILLING	G		Start Date	e: 9/9/201	12			End Date: 4/17/2013
Active Datum: RKB @5,092.00usft (above Mean Sea				UWI: N\	W/SE/0/1	0/S/22/E/	1/0/0/26/PM/S/18	338/E/0/2234/0/0
_evel) Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation
	Start-End	(hr)			Code		(usft)	
	6:00 - 17:00	11.00	DRLPRC	02	В	P	5374	DRILL SLIDE F/ 5374' TO 6296' ( 922' @ 83' / HR) WEIGHT ON BIT 18-25 K. AVERAGE WEIGHT ON BIT 25 K. ROTARY RPM 65, MUD MOTOR RPM 123. STROKES PER MINUTE 130 GALLONS PER MINUTE 586. OFF/ON PSI 1700/2125. DIFFERENTIAL 251. TORQUE HIGH/LOW 7920 / 4867 OFF BOTTOM TORQUE 4867 STRING WEIGHT UP/DOWN/ROT 175/96/109. DRAG 66 K. NOV RUNNING 1 CENTRIFUGES ON DEWATER. WT 9.0 VIS 39. ////// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 20 BARRELS LOSSES @ 1.8 BBL/HR NO FLARE Start:5374 End: 6296 FootageFeet% Total922 Slide454.88% Rotate87795.12%  TimeMinHrs% Total 66011 Slide500.8333337.58% Rotate61010.1666792.42%  Survey station 6246' 1.35 inc 5.82 azi 5972.60' TVD Bit position @ 6246' 7.62' north & 11.90' west of
	17:00 - 17:30	0.50	DRLPRC	07	Α	Р	6296	center of target RIG SERVICE DRAW TOOL,TOP DRIVE

			KIES REGION	
		Operation S	ummary Report	
ell: NBU 1022-104BS BLACK			Spud Date: 9/2	25/2012
oject: UTAH-UINTAH	Site	: NBU 1022-01J PAD		Rig Name No: PROPETRO 11/11, XTC 12/12
vent: DRILLING	Star	rt Date: 9/9/2012		End Date: 4/17/2013
ctive Datum: RKB @5,092.00usft (ab	I		)/S/22/E/1/0/0/26/PM/S/18	838/E/0/2234/0/0
evel)				
Date Time	Duration Phas	500	P/U MD From	Operation
Start-End	(hr)	Code	(usft)	
17:30 - 0:00	6.50 DRLF	PRC 02 B	P 6296	DRILL SLIDE F/ 6296' TO 6828' ( 532' @ 81' / HR) WEIGHT ON BIT 18-25 K. AVERAGE WEIGHT ON BIT 25 K. ROTARY RPM 65, MUD MOTOR RPM 123. STROKES PER MINUTE 130 GALLONS PER MINUTE 586. OFF/ON PSI 1700/2125. DIFFERENTIAL 251. TORQUE HIGH/LOW 7500 / 3000 OFF BOTTOM TORQUE 3000 STRING WEIGHT UP/DOWN/ROT 180/90/120. DRAG 60 K. NOV RUNNING 1 CENTRIFUGES ON DEWATER. WT 9.2 VIS 39. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 60 BARRELS LOSSES @ 9.2 BBL/HR NO FLARE  Start:6296 End: 6828 FootageFeet% Total532 Slide00.00% Rotate532100.00%  TimeMinHrs% Total 4207 Slide000.00% Rotate4207100.00%  Survey Station 6778' 0.63 inc 159.67 azi 6504.55' TVD

				On	tion O		m. Donort	
				Opera	ition S	umma	ry Report	
/ell: NBU 1022-	104BS BLACK						Spud Date: 9/2	25/2012
roject: UTAH-U	INTAH		Site: NBU	1022-01	J PAD			Rig Name No: PROPETRO 11/11, XTC 12/12
vent: DRILLING	3		Start Date	e: 9/9/201	2			End Date: 4/17/2013
ctive Datum: RI	KB @5,092.00usft (ab	ove Mean S	ea	UWI: N\	N/SE/0/1	0/S/22/E/1	/0/0/26/PM/S/18	338/E/0/2234/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/14/2013	0:00 - 5:30	5.50	DRLPRV	02	В	P	6828	DRILL SLIDE F/ 6828' TO 7226' (398' @ 72.3' / HR) WEIGHT ON BIT 18-25 K. AVERAGE WEIGHT ON BIT 25 K. ROTARY RPM 65, MUD MOTOR RPM 123. STROKES PER MINUTE 130 GALLONS PER MINUTE 586. OFF/ON PSI 2000/2400. DIFFERENTIAL 400. TORQUE HIGH/LOW 10000 / 5000 OFF BOTTOM TORQUE 5000 STRING WEIGHT UP/DOWN/ROT 160/90/120. DRAG 40 K. NOV RUNNING 1 CENTRIFUGES ON DEWATER. WT 9.2 VIS 39. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 0 BARRELS LOSSES @ 0 BBL/HR NO FLARE Start:6828 End: 7226 FootageFeet% Total398 Slide4812.06% Rotate35087.94%  TimeMinHrs% Total 3305.5 Slide651.08333319.70% Rotate2654.41666780.30%  7132' 11' North 10' West of center target 7132' Inc 0.46 Azm 128.55
								7132 INC 0.46 AZM 128.55

					S ROC			
				Opera	tion S	umma	ary Report	
Vell: NBU 1022-	-104BS BLACK						Spud Date: 9/2	25/2012
Project: UTAH-U	IINTAH		Site: NBL	J 1022-01	J PAD			Rig Name No: PROPETRO 11/11, XTC 12/12
vent: DRILLING	3		Start Dat	e: 9/9/201	12			End Date: 4/17/2013
	KB @5,092.00usft (a	bove Mean S	Sea	UWI: N	W/SE/0/1	0/S/22/E/	1/0/0/26/PM/S/18	338/E/0/2234/0/0
evel) Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation
	Start-End	(hr)			Code		(usft)	
	6:00 - 17:30	11.50	DRLPRV	02	В	P	7226	DRILL SLIDE F/ 7226' TO 7891' (665' @ 57.8' / HR) WEIGHT ON BIT 18-25 K. AVERAGE WEIGHT ON BIT 25 K. ROTARY RPM 65, MUD MOTOR RPM 123. STROKES PER MINUTE 100 GALLONS PER MINUTE 518. OFF/ON PSI 2609/3001. DIFFERENTIAL 488. TORQUE HIGH/LOW 9581 / 8295 OFF BOTTOM TORQUE 8295 STRING WEIGHT UP/DOWN/ROT 177/115/128. DRAG 49 K. NOV OFF LINE WT 12.2 VIS 43. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 60 BARRELS LOSSES @ 9.2 BBL/HR NO FLARE Start:7226' End: 7891 FootageFeet% Total665 Slide282.63% Rotate63797.37%  TimeMinHrs% Total 69011.5 Slide651.0833339.42% Rotate62510.4166790.58%  Survey station 7841' 0.29 inc 241.92 azi 7567.50' TVD Bit position @ 7841' 14.11' north & 8.39' west of
	17:30 - 18:00	0.50	DRLPRC	07	Α	Р	7226	target center RIG SERVICE DRAW TOOL, TOP DRIVE

				U	S ROC	KIES RE	EGION	
				Opera	tion S	umma	ry Report	
Vell: NBU 1022	-104BS BLACK						Spud Date: 9/2	25/2012
Project: UTAH-L	JINTAH		Site: NBU	1022-01	J PAD			Rig Name No: PROPETRO 11/11, XTC 12/12
Event: DRILLIN	G		Start Date	e: 9/9/201	2			End Date: 4/17/2013
Active Datum: R .evel)	RKB @5,092.00usft (a	bove Mean S	ea	UWI: NV	N/SE/0/1	0/S/22/E/1	I/0/0/26/PM/S/18	338/E/0/2234/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 0:00	6.00	DRLPRV	02	В	P	7891	DRILL SLIDE F/ 7891' TO 8140' ( 249' @ 41.5' / HR) WEIGHT ON BIT 18-25 K. AVERAGE WEIGHT ON BIT 27 K. ROTARY RPM 60, MUD MOTOR RPM 123. STROKES PER MINUTE 100 GALLONS PER MINUTE 518. OFF/ON PSI 2000/2500. DIFFERENTIAL 148. TORQUE HIGH/LOW 9500 / 3500 OFF BOTTOM TORQUE 3500 STRING WEIGHT UP/DOWN/ROT 190/110/130. DRAG 60 K. NOV OFF LINE WT 12.5 VIS 39. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 40 BBL. FLUID FOR HOLE VOLUME 0 BARRELS LOSSES @ 0 BBL/HR NO FLARE Start:7891 End: 8140 FootageFeet% Total252 Slide00.00% Rotate252100.00%  TimeMinHrs% Total 3906.5 Slide000.00% Rotate3906.5100.00%  Survey station 8106' 0.60 inc 155.73 azi 7832.50' TVD Bit position @ 8106' 12.94' north & 7.99' west of target
4/15/2013	0:00 - 5:30	5.50	DRLPRV	02	В	P	8140	DRILL SLIDE F/ 8140' TO 8333' ( 193' @35' / HR) WEIGHT ON BIT 18-25 K. AVERAGE WEIGHT ON BIT 27 K. ROTARY RPM 60, MUD MOTOR RPM 120. STROKES PER MINUTE 100 GALLONS PER MINUTE 518. OFF/ON PSI 2457/3025. DIFFERENTIAL 361. TORQUE HIGH/LOW 11397 / 10852 OFF BOTTOM TORQUE 10852 STRING WEIGHT UP/DOWN/ROT 190/110/130. DRAG 60 K. NOV OFF LINE WT 12.6 VIS 40. ////// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 60 BBL. FLUID FOR HOLE VOLUME 0 BARRELS LOSSES @ 0 BBL/HR

### API Well Number: 43047523670000 **US ROCKIES REGION Operation Summary Report** Well: NBU 1022-104BS BLACK Spud Date: 9/25/2012 Project: UTAH-UINTAH Site: NBU 1022-01J PAD Rig Name No: PROPETRO 11/11, XTC 12/12 **Event: DRILLING** End Date: 4/17/2013 Start Date: 9/9/2012 UWI: NW/SE/0/10/S/22/E/1/0/0/26/PM/S/1838/E/0/2234/0/0 Active Datum: RKB @5,092.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 5:30 - 6:00 0.50 **DRLPRV** 07 Ρ 8333 RIG SERVICE DRAW TOOL, TOP DRIVE Α 6:00 - 19:30 Р 8333 13.50 **DRLPRV** 02 В DRILL SLIDE F/ 8333' TO 8774' (441' @32.6' / HR) WEIGHT ON BIT 18-25 K. AVERAGE WEIGHT ON BIT ROTARY RPM 60. MUD MOTOR RPM 120. STROKES PER MINUTE 100 GALLONS PER MINUTE 518. OFF/ON PSI 2400/3000. **DIFFERENTIAL 600** TORQUE HIGH/LOW 12500 / 5000 OFF BOTTOM TORQUE 5000 STRING WEIGHT UP/DOWN/ROT 190/105/135. DRAG 55 K. NOV OFF LINE WT 12.7 VIS 42 ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 0 BBL. FLUID FOR HOLE VOLUME 0 BARRELS LOSSES @ 0 BBL/HR NO FLARE Start:8333 End: 8774 FootageFeet% Total441 Slide00.00% Rotate441100.00% TimeMinHrs% Total 85014.16667 Slide000.00% Rotate85014.16667100.00% Survey station 8724' 1.13 inc 10.96 azi 8450.44' Bit position @ 8724' 9.03' north & 4.47' west of target 19:30 - 20:00 0.50 DRLPRV 8774 RIG SERVICE DRAW TOOL, TOP DRIVE 07 Α 20:00 - 22:00 **DRLPRV** С 8774 2.00 05 CIRCULATE AND CONDITION TO DO # 1 WIPER TRIP 22:00 - 0:00 2.00 DRLPRV Р 8774 06 Α TRIP OUT OF HOLE F/ 8774' TO 7891' @00:00 PUMP AND ROT F/ 8774' TO 7891' @ 00:00 0:00 4/16/2013 - 2:30 2.50 **DRLPRV** 06 Р 7891 TRIP OUT OF HOLE F/ 7891' TO 6119' PUMP AND ROT F/ 7891' TO 6119' 2:30 - 3:30 1.00 DRLPRV 06 Ρ 6119 TRIP IN HOLE F/ 6119' TO 7404' Α 3:30 - 4:00 0.50 **DRLPRV** 07 Α Р 7404 RIG SERVICE DRAW TOOL, TOP DRIVE 4:00 - 4:30 0.50 DRLPRV Ζ 7404 08 Α CHANGE OUT PIPE SPINERS AND HOSES, FOR **SPINERS** 4:30 - 6:00 **DRLPRV** Р 7404 TRIP IN HOLE F/ 7404' TO 8774' NO FILL 1.50 06 Α 6:00 - 8:00 2.00 **DRLPRV** 05 С Ρ 8774 CIRCULATED BOTTOM UP TO CHECK FOR GAS. NO GAS NOTICED, NO FLAIR 8:00 - 20:00 12.00 **DRLPRV** 06 Α Ρ 8774 TRIP OUT OF THE HOLE TO RUN CASING LAY DOWN DIR TOOLS, BREAK BIT ((PUMP AND ROT F/ 8774' TO 6541'))

### API Well Number: 43047523670000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-104BS BLACK Spud Date: 9/25/2012 Project: UTAH-UINTAH Site: NBU 1022-01J PAD Rig Name No: PROPETRO 11/11, XTC 12/12 **Event: DRILLING** End Date: 4/17/2013 Start Date: 9/9/2012 UWI: NW/SE/0/10/S/22/E/1/0/0/26/PM/S/1838/E/0/2234/0/0 Active Datum: RKB @5,092.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 20:00 - 20:30 **DRLPRV** Ρ 8774 PULL THE WEAR BUSHING, SAVER SUB. 0.50 14 В 20:30 - 22:00 1.50 Р 8774 **DRLPRV** 12 Α HELD A SAFETY MEETING WITH KIMZEY, RIGGED UP CASING CREW 22:00 - 0:00 2.00 **CSGPRO** 12 С Ρ 8774 RAN 199 TOTAL JTS. OF CASING (83 JOINTS OF 4.5"/11.6# / I-80/ LTC + 1 MARKER) + (114 JTS. OF 4.5"/ 11.6#/ I-80/ DQX) + ( 1-DQX CROSS OVER). LANDED @ 8754.05', FLOAT COLLAR @ 8707.0', MESA VERDE MARKER @ 6520.3', CROSS OVER JT. @ 5039.2'. 4/17/2013 0:00 - 5:30 5.50 **CSGPRO** 8774 12 С FINISH RUNNING CASING ,RAN 199 TOTAL JTS. OF CASING (83 JOINTS OF 4.5"/11.6# / I-80/ LTC + 1 MARKER) + (114 JTS. OF 4.5"/ 11.6#/ I-80/ DQX) + ( 1-DQX CROSS OVER). LANDED @ 8754.05', FLOAT COLLAR @ 8707.0', MESA VERDE MARKER @ 6520.3', CROSS OVER JT. @ 5039.2'. 5:30 - 7:00 1.50 8774 **CSGPRO** 05 D CIRCULATED CASING ON BOTTOM 80STKS 360 GPM 700 PSI NO FLARE 7:00 - 10:30 3.50 **CSGPRO** 12 Ε Р 8774 SAFETY MEETING WITH BJ PRESSURE TEST TO 5000 PSI. PUMP 25 BBLS OF FRESH WATER. PUMP 162.4 BBLS (570 SX) OF PREMIUM LITE II LEAD CEMENT, 13.5 PPG 1.6 YLD, .05 LB/SACK OF STATIC FREE + .4%BWOC R-3 +.25 LBS/SACK CELLO FLAKE + 5 LBS/SACK KOL-SEAL + .3% BWOC FL-52 + 6% BWOC BENTONITE + 72.4%FRESH WATER . FOLLOWED BY 218 BBLS (930 SX) OF 14.3# 1.32 YD 5.91 GAL/SK. POZ 50/50 TAIL CEMENT + 2% BWOC BENTONITE + .005 LB/SACK STATIC FREE + 10% BWOW SODIUM CHLORIDE + .55%BWOC R-3 + .002GPS FP-6L + .75 BWOC SODIUM METASILICATE 58.8% FRESH WATER . SHUT DOWN AND FLUSH LINES. DROP PLUG AND DISPLACE W/ 135.4 BBLS OF FRESH WATER TREATED WITH CLAYFIX AND MAGNACIDE. 20 BBLS OF WATER SPACER TO SURFACE. LIFT PSI OF 2750 / BUMP PLUG 3400 PSI. . PRESSURE HELD 5 MINS. FLOAT HELD. FLOW BACK 2 BBLS. WITH 0 BBLS CMT TO SURFACE', EST TOC FOR TAIL 3852'. RIG DOWN CEMENTERS.GOOD RETURNS THROUGHOUT Р 8774 10:30 - 12:00 1.50 **CSGPRO** В SET THE PACK OFF 14 12:00 - 19:00 7.00 **RDMO** 14 Α Ρ 8774 NIPPLE DOWN THE BOP, CLEAN PITS AND RIG

6/19/2013 8:32:35AM 13

RELEASED @19:00 3/21/2013

## General

## **Customer Information** 1.

Company	US ROCKIES REGION
Representative	
Address	

## Well/Wellbore Information 1.2

				•
				API
			US ROCKIES REGION	We:
				11
General				Num
<b>Customer Information</b>				ber:
Company	US ROCKIES REGION			4
Representative				30
Address				)4
Well/Wellbore Information	ion			75236
Well	NBU 1022-104BS BLACK	Wellbore No.	<del>전</del>	57(
Well Name	NBU 1022-104BS	Wellbore Name	NBU 1022-104BS	00
Report No.	1	Report Date	6/3/2013	00
Project	UTAH-UINTAH	Site	NBU 1022-01J PAD	)
Rig Name/No.		Event	COMPLETION	
Start Date	5/1/2013	End Date	6/11/2013	
Spud Date	9/25/2012	Active Datum	RKB @5,092.00usft (above Mean Sea Level)	
IMI	NW/SE/0/10/S/22/E/1/0/0/26/PM/S/1838/E/0/2234/0/C			

### General ..

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method		

Summary

1.5

## Initial Conditions 4.1

Fluid Type		Fluid Density	Gross Interval	5,476.0 (usft)-8,565.0 (usft   Start Date/Time	6/3/2013 12:00AM
Surface Press		Estimate Res Press	No. of Intervals	66 End Date/Time	6/3/2013 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	245 Net Perforation Interval	76.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.22 (shot/ft) Final Surface Pressure	
Balance Cond	NEUTRAL			Final Press Date	

## Intervals

## Perforated Interval 2.1

Misrun	
Reason	23.00 PRODUCTIO N
Charge Weight (gram)	23.00
Phasing Charge Desc /Charge (°) Manufacturer	
Phasing (°)	120.00
Carr Size (in)	3.375
Carr Type /Stage No	EXP/
Diamete r (in)	0.360 EXP
Misfires/ Add. Shot	
Shot Density (shot/ft)	3.00
	5.476.0 5.479.0
MDTop MD Base (usft)	5,476.0
CCL@ CCL-T MI (usft) S (usft)	
(JJSN)	
Formation/ Reservoir	WASATCH/
Date	6/3/2013 12:00AM

OpenWells

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Interva
rforated
Pe

2.1 P.	Perforated Interval (Continued)	Continue	(pe										US ROCKIES REGION	
Date	Formation/ Reservoir	(JJSIN)	S S	MD Top (usft)	MD Base (usft)	Shot Misfires/ Density Add. Shot	Diamete t r	Carr Type /Stage No	Carr	Phasing (*)	Charge Desc /Charge Manufacturer	Charge Weight	Reason	Number Wiston
6/3/2013 12:00AM	WASATCH/			5,500.0	5,503.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	WASATCH/			5,910.0	5,911.0	4.00	0.360	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N	1304
6/3/2013 12:00AM	WASATCH/			5,938.0	5,939.0	4.00	0.360	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N	175
6/3/2013 12:00AM	WASATCH/			5,953.0	5,954.0	4.00	0.360	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N	236
6/3/2013 12:00AM	WASATCH/			6,046.0	6,047.0	4.00	0.360	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N	700
6/3/2013 12:00AM	WASATCH/			6,078.0	6,079.0	4.00	0.360	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N	00
6/3/2013 12:00AM	WASATCH/			6,272.0	6,274.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	WASATCH/			6,373.0	6,375.0	3.00	0.360	0.360 EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	WASATCH/			6,390.0	6,392.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			6,766.0	6,767.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			6,809.0	6,810.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			6,848.0	6,849.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO	
6/3/2013 12:00AM	MESAVERDE/			6,869.0	6,870.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			6,894.0	6,895.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			6,922.0	6,923.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			6,937.0	6,938.0	3.00	0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			7,004.0	7,005.0	4.00	0.360	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			7,044.0	7,045.0	4.00	0.360	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			7,114.0	7,115.0	4.00	0.360	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			7,167.0	7,169.0	4.00	0.360	0.360 EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N	
6/3/2013 12:00AM	MESAVERDE/			7,286.0	7,287.0	3.00	0.360	0.360 EXP/	3.375	120.00		23.00	23.00 PRODUCTIO	

OpenWells

June 19, 2013 at 8:40 am

RECEIVED: Aug. 20, 2013

Perforated Interval (Continued)

API Well	Nu	mber	: 4	1304	175	236	700	00															
REGION		Misrun																					
US ROCKIES REGION		Reason	23.00 PRODUCTIO N																				
		Charge Weight (gram)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.0(	23.00	23.00	23.0(	23.00	23.00	23.00	23.00	23.00
		Charge Desc /Charge Manufacturer																					
		Phasing (°)	120.00	00.06	90.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
		Carr Size (in)	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375
		Carr Type /Stage No	EXP/																				
		Diamete r (in)	<u> </u>	0.360	0.360	0.360	0.360	0.360	0.360	0.360 EXP/	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360 EXP/	0.360 EXP/
		Misfires/ Add. Shot		0	0	0	0	0	0	0	0			0	0	0	0	0	0		0	0	
		Shot Density (shot/ft)		0 4.00	0 4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		MD Base (usft)	7,304.0	7,354.0	7,428.0	7,448.0	7,485.0	7,513.0	7,543.0	7,570.0	7,590.0	7,610.0	7,625.0	7,651.0	7,675.0	7,693.0	7,703.0	7,711.0	7,720.0	7,729.0	7,749.0	7,776.0	7,827.0
		MD Top (usft)	7,303.0	7,353.0	7,427.0	7,446.0	7,484.0	7,512.0	7,542.0	7,569.0	7,589.0	0.609,7	7,624.0	7,650.0	7,674.0	7,692.0	7,702.0	7,710.0	7,719.0	7,728.0	7,748.0	7,775.0	7,826.0
	(pa	CCL-T S S																					
	Continue	(JJSN)																					
	Perforated Interval (Continued)	Formation/ Reservoir	MESAVERDE/																				
	2.1 Pc	Date	6/3/2013 12:00AM																				

RECEIVED: Aug. 20, 2013

June 19, 2013 at 8:40 am

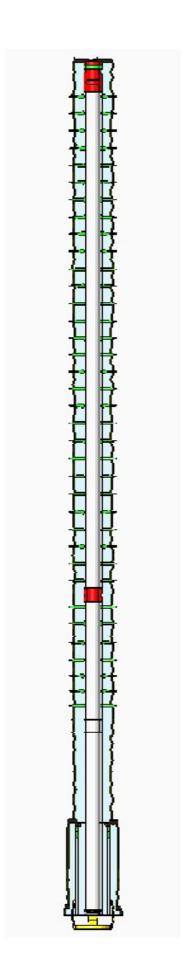
API Well	Numb	er	: 4	304	1752	236	700	00															
REGION	Misrun																						
US ROCKIES REGION	Reason		23.00 PRODUCTIO	23.00 PRODUCTIO N																			
	Charge	Weight (gram)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
	Charge Desc /Charge	Manufacturer																					
	Phasing	0	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	00.06	90.00	90.00
	Carr	Size (in)	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375
	Carr Type /Stage No		EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	0.360 EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	0.360 EXP/	0.360 EXP/
	Diamete	r (in)	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360
		Add. Shot	0	0		0		0						0	0	0							
		S P	0 3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.4	0 4.00	0 4.00
	MD Base	(nstt)	7,896.(	7,909.0	7,920.0	7,957.0	8,017.0	8,050.0	8,068.0	8,091.0	8,098.0	8,131.0	8,144.0	8,172.0	8,184.0	8,198.0	8,212.0	8,230.0	8,241.0	8,283.0	8,323.0	8,347.0	8,512.0
	MD Top	(JJsn)	7,895.0	7,908.0	7,919.0	7,956.0	8,016.0	8,049.0	8,067.0	8,090.0	8,097.0	8,130.0	8,142.0	8,171.0	8,183.0	8,197.0	8,211.0	8,229.0	8,240.0	8,282.0	8,322.0	8,346.0	8,511.0
5	9	S (nsft)																					
	Continu CCL@	(JJsn)																					
	Ferrorated Interval (Continued)  Formation/   CCL@   C	Reservoir	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/	MESAVERDE/
	2.1 PC		6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM	6/3/2013 12:00AM

RECEIVED: Aug. 20, 2013

June 19, 2013 at 8:40 am

OpenWells

API Weli	l Nu	mber	: 4	304	175236	700	00
REGIO		Misrun					
US ROCKIES REGION		Reason	23.00 PRODUCTIO N	23.00 PRODUCTIO N			
		Charge Weight (gram)	23.00	23.00			
		Charge Desc /Charge Manufacturer					
		Phasing (°)	90.00	90.00			
		Carr Size (in)	3.375	3.375			
		Carr Type /Stage No	XP/	XP/			
		Diamete r (in)	0.360 EXP/	0.360 EXP/			
		Shot Misfires/ Density Add. Shot (shot/ft)					
		Shot Density (shot/ft)	4.00	4.00			
			8,534.0	8,565.0			
		CCL-T MDTop MD Base S (usft) (usft)	8,533.0	8,564.0			
	ed)	CCL-T S (usft)					
	(Continu	(JJSN)				0	
	Perforated Interval (Continued)	Formation/ Reservoir	MESAVERDE/	MESAVERDE/	Plots	Wellbore Schematic	
	2.1 P.	Date	6/3/2013 12:00AM	6/3/2013 1 12:00AM	3 Pl	3.1 W	



June 19, 2013 at 8:40 am

OpenWells

Event: COMPLETION	
Project: UTAH-UINTAH  Event: COMPLETION  Start Date: 5/1/2013  Active Datum: RKB @5.092.00usft (above Mean Sea Level)  Date Time Start-End (hr) Phase Code Sub P/U MD From (usft)  5/1/2013 -  5/31/2013 12:00 - 13:00 1.00 SUBSPR 33 C P F P/U Signature Signat	
Start Date: 5/1/2013   UWI: NW/SE/0/10/S/22/E/1/0/0/26/PM/S/1838/E   Level)	2012
Active Datum: RKB @5,092.00usft (above Mean Sea Level)    Date   Time   Start-End   (hr)   Phase   Code   Sub   P/U   MD From (usft)	Rig Name No: MILES-GRAY 1/1
Date	End Date: 6/11/2013
Date	E/0/2234/0/0
5/31/2013 12:00 - 13:00 1.00 SUBSPR 33 C P P P P 11: 55 N S B P 51 13:00 - 14:00 1.00 SUBSPR 37 P S D 6/3/2013 7:30 - 18:00 10.50 FRAC 36 B P B N S S F B N S F B R S F B R S F B R S F B R S F B R S F B R S F B R S F B R S F B R S F B R S F B R S F B R S F B R S F B R S F B R R S F B R R S F B R R S F B R R S F B R R R S F B R R R S F B R R R R R R R R R R R R R R R R R R	Operation
P 11:55 N S S S S S S S S S S S S S S S S S S	
13:00 - 14:00	FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES IST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 58 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. PRESSURE TEST 8 5/8 X 4 1/2 TO 529 PSI HELD FOR 5 MIN
B N S F S F B	LOST -49 PSI,BLED PSI OFF, REINSTALLED POP OFF PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE BIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWIFW
N	FRAC STG 1)WHP 1224 PSI, BRK 3586 PSI @ 4.7 3PM. ISIP 2451 PSI, FG. 0.73 ISIP 2664 PSI, FG. 0.75, NPI 213 PSI. SWI, XO T/ WL.  SET CBP & PERF STG 2 AS DESIGNED.  FRAC STG 2)WHP 1558 PSI, BRK 3620 PSI @ 5.1 3PM. ISIP 2391 PSI, FG. 0.73 ISIP 2763 PSI, FG. 0.77, NPI 372 PSI. SWI, XO T/ WL.  SET CBP & PERF STG 3 AS DESIGNED.  FRAC STG 3)WHP 2260 PSI, BRK 4075 PSI @ 4.7 3PM. ISIP 2650 PSI, FG. 0.77 ISIP 2739 PSI, FG. 0.78, NPI 89 PSI. SWI, XO T/ WL.
FI B N	SET CBP & PERF STG 4 AS DESIGNED.  FRAC STG 4)WHP 2233 PSI, BRK 2830 PSI @ 4.9 BPM. ISIP 2290 PSI, FG. 0.73 ISIP 2118 PSI, FG. 0.71, NPI -172 PSI. SWI, XO T/ WL.  SET CBP & PERF STG 5 AS DESIGNED. SWIFN. HSM. HIGH PSI LINES.

API We	ell Number	: 4304	752367			KIES RE	EGION	
				Opera	tion S	umma	ry Report	
Well: NBU 1022	2-104BS BLACK						Spud Date: 9/2	25/2012
Project: UTAH-L			Site: NBL	J 1022-01	J PAD			Rig Name No: MILES-GRAY 1/1
Event: COMPLE	ETION		Start Date	e· 5/1/201	3			End Date: 6/11/2013
	RKB @5,092.00usft (	above Mean S		1		l 0/S/22/E/1	/0/0/26/PM/S/18	38/E/0/2234/0/0
Level)	<b>3</b> 2,712 2221							
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 7:00	0.00	FRAC	36	В	Р		FRAC STG 5)WHP 1724 PSI, BRK 1970 PSI @ 8.6 BPM. ISIP 1678 PSI, FG. 0.66 ISIP 1974 PSI, FG. 0.7, NPI 296 PSI. SWI, XO T/ WL.  SET CBP & PERF STG 6 AS DESIGNED.
								FRAC STG 6)WHP 1840 PSI, BRK 2131 PSI @ 8.6 BPM. ISIP 1831 PSI, FG. 0.68 ISIP 2013 PSI, FG. 0.71, NPI 182 PSI. SWI, XO T/ WL.
								SET CBP & PERF STG 7 AS DESIGNED.
								FRAC STG 7)WHP 1440 PSI, BRK 2886 PSI @ 4 BPM. ISIP 1717 PSI, FG. 0.67 ISIP 2263 PSI, FG. 0.75, NPI 546 PSI. SWI, XO T/ WL.
6/5/2013	6:45 - 7:00	0.25	FRAC	48		Р		SET CBP & PERF STG 8 AS DESIGNED. HSM. HIGH PSI LINES.
	7:00 - 18:00	11.00	FRAC	36	В	Р		FRAC STG 8)WHP 1305 PSI, BRK 2591 PSI @ 3.9 BPM. ISIP 1687 PSI, FG. 0.68 ISIP 2500 PSI, FG. 0.79, NPI 813 PSI. SWI, XO T/ WL.
								SET CBP & PERF STG 9 AS DESIGNED.
								FRAC STG 9)WHP 815 PSI, BRK 2559 PSI @ 4.1 BPM. ISIP 1243 PSI, FG. 0.62 ISIP 2263 PSI, FG. 0.77, NPI 1020 PSI. SWI, XO T/ WL.
								SET CBP & PERF STG 10 AS DESIGNED.
								FRAC STG 10)WHP 645 PSI, BRK 3872 PSI @ 4 BPM. ISIP 2771 PSI, FG. 0.88 ISIP 2013 PSI, FG. 0.76, NPI -758 PSI. SWI, XO T/ WL.
								SET CBP & PERF STG 11 AS DESIGNED. POOH, SWIFN.
6/6/2013	8:00 - 18:00	10.00	FRAC	36	В	Р		FRAC STG 11)WHP 428 PSI, BRK 2328 PSI @ 3.1 BPM. ISIP 1094 PSI, FG. 0.62 ISIP 1520 PSI, FG. 0.69, NPI 426 PSI. SWI, XO T/ WL.
								SET CBP & PERF STG 12 AS DESIGNED.
								FRAC STG 12)WHP 650 PSI, BRK 2364 PSI @ 4 BPM. ISIP 1342 PSI, FG. 0.68 ISIP 1553 PSI, FG. 0.72, NPI 211 PSI. SWI, XO T/ WL.
								PU 4 1/2 8K HAL CBP. RIH SET CBP @ 5426'. POOH, SWI. DONE FRACING THIS WELL.
								TOTAL SAND = 287,631LBS. TOTAL CLFL = 12,947 BBLS.
6/10/2013	7:00 - 7:15	0.25	DRLOUT	48		Р		HSM-JSA

API We	ell Number	<del>4304</del>	752367		S ROC	KIES R	EGION	
				Opera	tion S	umma	ary Report	
Well: NBU 1022-	-104BS BLACK						Spud Date: 9/25	5/2012
Project: UTAH-U	JINTAH		Site: NBU	1022-01	J PAD			Rig Name No: MILES-GRAY 1/1
Event: COMPLE	TION		Start Date	e: 5/1/201	3			End Date: 6/11/2013
Active Datum: R Level)	KB @5,092.00usft (al	oove Mean Se	ea	UWI: N	N/SE/0/1	0/S/22/E/	1/0/0/26/PM/S/183	38/E/0/2234/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 18:00	10.75	DRLOUT	31	ı	Р		MOVE RIG & EQUIP FROM 921-19P4BS, MOVE ANCHOR BLOCKS FROM 1022-1P & 1023-9H, MIRU, SPOT EQUIP, PU 3 7/8" BIT RIH W/ 171 JTS TAG FILL @ 5,415', SWI, SDFN.
6/11/2013	7:00 - 7:15	0.25	DRLOUT	48		Р		HSM-JSA

API We	<del>ll Number:</del>	4304	<del>752367</del>			KIES R	EGION	
				Opera	tion S	umma	ary Report	
Well: NBU 1022-	104BS BLACK						Spud Date: 9/2	5/2012
Project: UTAH-U	INTAH		Site: NBL	1022-01	J PAD			Rig Name No: MILES-GRAY 1/1
Event: COMPLE	TION		Start Date	e: 5/1/201	3			End Date: 6/11/2013
Active Datum: RI	KB @5,092.00usft (ab	ove Mean S	ea	UWI: N\	N/SE/0/1	0/S/22/E/	1/0/0/26/PM/S/18	38/E/0/2234/0/0
Level)			Dhara	0 - 1 -		D/II		Organitar
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 16:00	8.75	DRLOUT	44	С	Р	(dell)	RU PWR SWVL, BRK CIRC PRESS TEST BOP TO 3,000 PSI.
								C/O 11' SAND TAG PLUG #1 @ 5,426, DRL HAL 8K CBP IN 6 MIN, 0 PSI INC, FCP 0 PSI, RIH TAG FILL @ 5,508'.
								C/O 25' SAND TAG PLUG #2 @ 5,533', DRL HAL 8K CBP IN 6 MIN, 0 PSI INC, FCP 0 PSI, RIH TAG FILL @ 6,069'.
								C/O 40' SAND TAG PLUG #3 @ 6,109', DRL HAL 8K CBP IN 14 MIN, 0 PSI INC, FCP 0 PSI, RIH TAG FILL @ 6,387'.
								C/O 35' SAND TAG PLUG #4 @ 6,422', DRL HAL 8K CBP IN 9 MIN, 400 PSI INC, FCP 50 PSI, RIH TAG FILL @ 6,938'.
								C/O 30' SAND TAG PLUG #5 @ 6,968', DRL HAL 8K CBP IN 8 MIN, 200 PSI INC, FCP 200 PSI, RIH TAG FILL @ 7,169'.
								C/O 30' SAND TAG PLUG #6 @ 7,199', DRL HAL 8K CBP IN 10 MIN, 200 PSI INC, FCP 300 PSI, RIH TAG FILL @ 7,454'.
								C/O 20' SAND TAG PLUG #7 @ 7,474', DRL HAL 8K CBP IN 12 MIN, 800 PSI INC, FCP 400 PSI, RIH TAG FILL @ 7,605'.
								C/O 35' SAND TAG PLUG #8 @ 7,640', DRL HAL 8K CBP IN 10 MIN, 0 PSI INC, FCP 400 PSI, RIH TAG FILL @ 7,750.
								C/O 15' SAND TAG PLUG #9 @ 7,765', DRL HAL 8K CBP IN 7 MIN, 300 PSI INC, FCP 500 PSI, RIH TAG FILL @ 7,957'.
								C/O 30' SAND TAG PLUG #10 @ 7,987', DRL HAL 8K CBP IN 8 MIN, 400 PSI INC, FCP 600 PSI, RIH TAG FILL @ 8,136'.
								C/O 25' SAND TAG PLUG #11 @ 8,161', DRL HAL 8K CBP IN 9 MIN, 500 PSI INC, FCP 700 PSI, RIH TAG FILL @ 8,292'.
								C/O 20' SAND TAG PLUG #12 @ 8,312', DRL HAL 8K CBP IN 10 MIN, 500 PSI INC, FCP 800 PSI, RIH TAG FILL @ 8,649'.
								C/O 30' SAND TO 8,679' (114' BLW BTM PERF), CIRC CLEAN, RD PWR SWVL, POOH LD 17 JTS TBG, LAND TBG W/ 256 JTS 2 3/8" TBG EOT @ 8,140.21', RD FLOOR & TBG EQUIP, NDBOP, NUWH, DROP BALL POBS @ ???, PUMPED 40 BBLS NO PSI INC,

API Wel	l Number	4304	752367			KIES RE	EGION	
				Opera	tion S	Summa	ry Report	
Well: NBU 1022-1	O4BS BLACK						Spud Date: 9/2	5/2012
Project: UTAH-UII	NTAH		Site: NBU	1022-01	J PAD			Rig Name No: MILES-GRAY 1/1
Event: COMPLET	ION		Start Date	e: 5/1/201	13			End Date: 6/11/2013
Active Datum: RK Level)	B @5,092.00usft (ab	oove Mean Se	ea	UWI: N\	W/SE/0/1	0/S/22/E/1	I/0/0/26/PM/S/18	38/E/0/2234/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:00 - 16:00	0.00	DRIGHT	50				PRESS TEST FLOWLINE BETWEEN HAL 9,000 & WELLHEAD TO 3,500 PSI, TURN WELL OVER TO FBC, SDFN.  KB-15' HANGER83' 106 JTS 2 3/8" L-80-3,365.46' PUP JT-6.15' 150 JTS 2 3/8" J-55-4,750.57' POBS W/ XN SN-2.20' EOT @ 8,140.21'  TLTR=13,367 BBLS LR=2,217 BBLS LLTR=11,150 BBLS
	16:00 - 16:00	0.00	DRLOUT	50				WELL TURNED TO SALES @ 1600 HR ON 6/11/2013. 1500 MCFD, 1920 BWPD, FCP 2104#, FTP 1960#, 20/64" CK.



875

700

525

Map Unit: USFt Vertical Reference Datum (VRD): Mean Sea Level Projected Coordinate System: NAD27 / UTM zone 12N Latitude: 39.975767° Longitude: -109.386099° Field: Greater Natural Buttes\_Anadarko\_NAD 27 Offset is from Site centre +N/-s: -49.5303ft Northing: 14521312.25USft +N/-s: -7.85USft Easting: 202573.34USft Elevation Above VRD: 5077.00USft Plan Data for NBU 1022-104BS Slot: NBU 1022-104BS Position:

DogLeg 2	Severit	:y Unit:	DoqLeg Severity Unit: 0/100.00ft		Position	Position offsets from Slot centre	from Sl	ot centr
MD	Inc	Az	IVD		+N/-S +E/-W	VSec	DLS I	Toolface
(USft)	(°)	(,)	(USft)	(USft)	(USft)	(USft)	(DFTG)	(°)
2328.00	25.32	161.41	2328.00 25.32 161.41 2219.58	-557.75	206.42	593.70	0.75	58.6R
2528.00	25.32	161.41	25.32 161.41 2400.36	-638.82	233.68	679.20	00.0	0.0R
2843.12	25.32	146.64	25.32 146.64 2685.50	-759.10	292.27	811.34	2.00	36.7L
3390.72	23.29	173.01	23.29 173.01 3186.00	-965.00	370.08	1030.98	2.00	112.4R
3914.50		173.01	23.29 173.01 3667.09	-1170.60	395.30 1235.00	1235.00	0.00	0.0R
5079.24		00.00	4800.00	0.00 0.00 4800.00 -1402.39	423.74 1465.01	1465.01	2.00	180.0R
5187.03	0.32	179.27	4907.79	0.32 179.27 4907.79 -1402.69 423.74 1465.30	423.74	1465.30	0.30	179.3R
8720.30	0.32	179.27	8441.00	8720.30 0.32 179.27 8441.00 -1422.63 424.00 1484.44	424.00	1484.44	00.0	0.0R

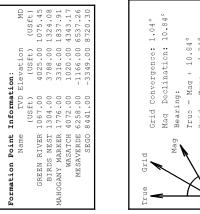
### Plan Data for NBU 1022-104BS Target Set Information: DRILLERS IGT.



Plan Data for NBU 1022-104BS

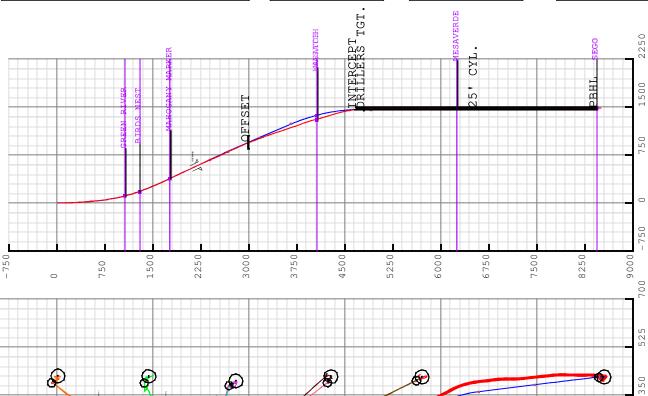
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5D Survey Report

## **Anadarko Petroleum**

Petroleum Corporation

Field Name: Well Name: Site Name:

Greater Natural Buttes\_Anadarko\_NAD 27 NBU 1022-1J

NBU 1022-104BS

Definitive Survey

Survey:



5D 7.5.4: 19 June 2013, 21:10:06 UTC

Weatherford International Limited

2013 RECEIVED: Aug. 20,

5D 7.5.4: 19 June 2013, 21:10:06 UTC

5D Survey Report



# Surveys for the NBU 1022-104BS

Convergence Angle: 1.04	Latitude: 39.975903 Longitude: -109.386071			19.975767	Longitude: -109.386099							<b>Az :</b> 163.40°
Convergen	Latitude: 39.975903 Longitude: -109.386		Position (Offsets relative to Site Centre)	<b>Latitude:</b> 39.975767	Longitude :				Comment :	Closure Azimuth: 163.498°		+E / -W: 0.00 US ft
North Reference : True	Northing: 14521361.92 USft Easting: 2092580.29 USft		Position (Offsets	Northing:14521312.25 USft	Easting:2092573.34 USft	vation		UWI:	¥	Clos	gin Relative to Slot )	+N / -S: 0.00 USft +E/
Units: US ft	Position	Elevation above:5077.00 US ft Comment:		+N / -S: -49.53 US ft	+E / -W:-7.85 US ft	Slot TVD Reference: Ground Elevation Elevation above: 5077.00 US ft	Comment :	Type: Main well	Rig Height <i>Drill Floor</i> : 15.00 US Relative to: 5092.00 US ft	Closure Distance: 1480.26 US ft	Vertical Section (Position of Origin Relative to Slot	/ N+
	Site Name	NBU 1022-1J			Slot Name	NBJ 1022-104BS			O S O N		NBU 1022-104BS	

Weatherford International Limited

m

5D Survey Report

Target Set	Name: 1	Comment :	TargetName: +N / -S:-1422.63US ft +E / -W : 424.00 US ft Shape:	TVD (Drill Floor) : 8 Orientation Dimensions	TargetName: +N / -S:-1399.55US ft +E / -W: 423.39 US ft Shape:	TVD (Drill Floor) :4 Orientation Dimensions	Target Name: +N / -S: -1422.63US ft	25' CYL. <b>+E / -W : 424.00US ft</b>	Cylinder TVD (Drill Floor) : 6556.50 US ft	Orientation Azim	Dimensions Radi	Target Name: +N / -S: -1402.39US ft	DRILLERS TGT. +E / -W: 423.74US ft	Shape: TVD (Drill Floor): 4800.00 US ft
	Number of Targets : $5$			3441.00 US ft <b>Azimuth :</b> 0.00° Length : 1.00 US ft		1672.00 US ft <b>Azimuth</b> : 0.00° Length : 1.00 US ft			6.50 US ft	Azimuth: 1.04°	<b>Radius:</b> 25.00 US ft			0.00 US ft
			Position (Relative to centre) Northing: 14519897.53 US ft Easting: 2093023.02US ft	Inclination: 0.00° Breadth: 1.00 US ft	Position (Relative to centre) Northing: 14519920.60 US ft Easting: 2093021.99US ft	Inclination : 0.00° Breadth : 1.00 US ft	Position (Relative to centre) Northing: 14519897.53US ft	Easting: 2093023.02 US ft		Inclination: 0.00°	<b>Length :</b> 3769.00 US ft	Position (Relative to centre) Northing: 14519917.76US ft	Easting: 2093022.40 US ft	
			Latitude : 39°58'18.699513" Longitude : -109°23'4.509600"	<b>Height :</b> 1.00 US ft	Latitude: 39°58'18.927683" Longitude:-109°23'4.517418"	<b>Height :</b> 1.00 US ft	Latitude : 39°58'18.699513"	Longitude: -109°23'4.509600"				Latitude: 39°58'18.899612"	Longitude : -109°23'4.512923"	

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	Orientation	Azimuth: 1.04°		Inclination: 0.00°	.00		
	Dimensions	Radius: 15.00 USft		Length :1.00 US ft	S ft		
Target Name:	+N / -S: -933.49US ft	9US <del>(t</del>	P Northing:	Position (Relative to centre) Northing: 14520382.99US ft		Latitude : 39°58'23,534301"	
OFFSET	+E / -W : 225.03US ft	3US ft	Easting: 2	Easting: 2092815.23 USft	Longit	Longitude : -109°23'7.065612"	
<b>Shape:</b> Cylinder	TVD (Drill Floor	TVD (Drill Floor): 3000.00 US ft					
	Orientation	Azimuth: 1.04°		Inclination: 0.00°	°00°		
	Dimensions	<b>Radius:</b> 104.76 US ft		Length:1.00 USff	S ft		
Societies of come IN volume 3	Gariero Curross						
Date: 31/Jan/2013	S Salvey	Survey Tool :	l	Comment:		Company:	
Magnetic Model Model Name: BGGM		<b>Date:</b> 31/Jan/2013	Field Streng	Field Strength: 52140.8 nT	Declination: 10.84°	<b>Dip:</b> 65.81°	
Survey Tool Ranges	es						
Z	Name	Start MD (us ft)	(USft)	End MD (us ft)	(us ft)	Source Survey	
	MWE	0:0	00.0	2328.00	00	SDI SURFACE	
_	MWE	2328.00	3.00	8774.00	00	WFT MWD	
Casing Points (Relative to		centre, TVD relative to Drill Floor)					
Name	MD (US ft)	Inc (°)	A7 (°)	TVD (US ft)	N.Offset E.C (US ft) (L	F.Offset Latitude (°)	Longitude (°)
8 5/8 in	2337.00	25.20	161.11	27.72	-561.39 20	207.65 39.974226	-109.385358

Survey Points (Relat	tive to	irvey Points (Relative to centre, TVD relative to Drill Floor )	Drill Floor								
ME (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	=asting (US ft)	Latitude (°)	Longitude (°)	VS (US ft)	Comment
0.00	00.0	0.00	0.00	0.00	0.00	14521312.25	2092573.34	39.975767	-109.386099	-0.00	
11.00	0.00	0.00	11.00	0.00	0.00	14521312.25	2092573.34	39.975767	-109.386099	-0.00	
15.00	0.00	0.00	15.00	0.00	0.00	14521312.25	2092573.34	39.975767	-109.386099	-0.00	
148.00	1.26	196.97	147.99	-1.40	-0.43	14521310.85	2092572.94	39.975763	-109.386101	1.22	
176.00	1.58	192.44	175.98	-2.07	-0.60	14521310.17	2092572.78	39.975761	-109.386101	1.81	
205.00	1.93	188.92	204.97	-2.94	-0.76	14521309.30	2092572.63	39.975759	-109.386102	2.60	

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Comment																											TIE ON	8 5/8 in	FIRST WFT MWD SURVEY											
(14 SU) VS	3.61	4.86	98.9	8.12	10.18	16.84	23.63	31.11	41.07	53.99	69.41	87.55	108.60	132.50	159.64	190.00	222.66	256.46	291.44	327.91	365.36	403.71	441.99	480.15	518.32	556.12	593.47	597.31	646.81	681.29	716.36	751.83	789.11	825.80	861.39	897.12	931.40	963.27	994.44	1025.54
Longitude (°)	-109.386102	-109.386102	-109.386101	-109.386100	-109.386098	-109.386089	-109.386081	-109.386076	-109.386068	-109.386058	-109.386046	-109.386032	-109.386011	-109.385982	-109.385946	-109.385902	-109.385852	-109.385801	-109.385754	-109.385705	-109.385653	-109.385598	-109.385547	-109.385500	-109.385453	-109.385406	-109.385362	-109.385358	-109.385295	-109.385241	-109.385175	-109.385100	-109.385023	-109.384951	-109.384882	-109.384820	-109.384763	-109.384714	-109.384679	-109.384656
Latitude (°)	39.975756	39.975752	39.975748	39.975744	39.975738	39.975721	39.975703	39.975683	39.975656	39.975622	39.975580	39.975532	39.975476	39.975414	39.975345	39.975268	39.975186	39.975101	39.975011	39.974918	39.974823	39.974725	39.974627	39.974529	39.974430	39.974333	39.974236	39.974226	39.974098	39.974012	39.973927	39.973842	39.973753	39.973664	39.973578	39.973490	39.973405	39.973325	39.973244	39.973160
Easting (US ft)	2092572.52	2092572.54	2092572.77	2092573.24	2092573.90	2092576.40	2092578.70	2092580.41	2092582.65	2092585.76	2092589.40	2092593.79	2092599.86	2092608.32	2092618.95	2092631.73	2092646.45	2092661.17	2092675.05	2092689.28	2092704.66	2092720.59	2092735.38	2092749.32	2092763.24	2092776.86	2092789.82	2092791.12	2092809.72	2092825.35	2092844.35	2092865.96	2092888.08	2092908.93	2092928.73	2092946.69	2092963.34	2092977.50	2092987.79	2092994.82
Northing (US ft)	14521308.20	14521306.90	14521305.40	14521303.71	14521301.75	14521295.55	14521289.16	14521281.85	14521272.12	14521259.55	14521244.52	14521226.89	14521206.73	14521184.34	14521159.24	14521131.45	14521101.86	14521071.07	14521038.77	14521005.03	14520970.63	14520935.45	14520899.99	14520864.37	14520828.74	14520793.40	14520758.33	14520754.72	14520708.70	14520677.48	14520646.72	14520616.38	14520584.29	14520552.41	14520521.36	14520489.58	14520458.90	14520429.96	14520400.53	14520370.14
E.Offset (US ft)	06.0-	-0.90	69.0-	-0.26	0.37	2.75	4.94	6.51	8.58	11.46	14.83	18.90	24.61	32.66	42.83	55.11	69.29	83.45	96.74	110.36	125.11	140.40	154.55	167.85	181.12	194.10	206.42	207.65	225.41	240.47	258.92	279.98	301.51	321.78	341.01	358.40	374.48	388.12	397.87	404.36
N.Offset (US ft)	-4.04	-5.34	-6.85	-8.55	-10.52	-16.75	-23.18	-30.52	-40.30	-52.92	-68.01	-85.72	-105.99	-128.53	-153.81	-181.83	-211.68	-242.73	-275.28	-309.27	-343.95	-379.41	-415.13	-451.00	-486.87	-522.45	-557.75	-561.39	-607.74	-639.23	-670.33	-701.06	-733.54	-765.79	-797.19	-829.30	-860.27	-889.46	-919.08	-949 59
TVD (US ft)	233.95	261.92	289.87	318.82	349.75	439.50	529.25	618.93	768.37	797.43	886.09	974.23	1061.73	1148.48	1234.25	1318.88	1402.59	1485.87	1568.72	1650.93	1732.66	1813.96	1895.34	1976.81	2058.27	2139.92	2219.58	22.7.72	2336.96	2415.55	2495.77	2575.50	2654.39	2732.61	2812.53	2892.60	2974.45	3057.41	3139.69	3221.97
A7 (°)	185.73	175.38	169.14	162.46	162.11	156.40	166.28	169.23	167.21	167.04	167.74	166.51	162.29	158.60	157.63	155.17	154.03	156.93	158.60	157.72	156.22	157.10	159.74	159.56	159.83	160.09	161.41	161.11	156.83	152.11	146.56	144.64	148.21	147.45	149.63	153.47	151.51	158.50	165.10	170.85
Inc (°)	2.44	2.90	3.34	3.61	4.04	4.48	4.21	5.36	7.39	9.15	10.64	12.66	14.42	16.44	18.82	20.93	22.16	22.42	23.57	24.45	25.06	25.76	24.80	25.50	24.80	24.97	25.32	25.20	23.70	24.24	24.33	25.77	26.83	25.10	24.38	24.67	21.52	21.00	20.57	21 01
MC (US ft)	234.00	262.00	290.00	319.00	350.00	440.00	530.00	620.00	710.00	800.00	00.068	00.086	1070.00	1160.00	1250.00	1340.00	1430.00	1520.00	1610.00	1700.00	1790.00	1880.00	1970.00	2060.00	2150.00	2240.00	2328.00	2337.00	2457.00	2543.00	2631.00	2719.00	2807.00	2894.00	2982.00	3070.00	3159.00	3248.00	3336.00	3424.00

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6	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(0)	(0)	(US ft)	
175.63	3304.25	-980.59	408.05	14520339.21	2092999.07	39.973075	-109.384643	1056.30	
170.16	3387.23	-1009.64	411.59	14520310.23	2093003.14	39.972995	-109.384630	1085.15	
176.23	3469.71	-1037.10	414.84	14520282.84	2093006.89	39.972920	-109.384619	1112.39	
180.06	3554.96	-1065.95	415.78	14520254.00	2093008.35	39.972840	-109.384615	1140.31	
179.74	3638.92	-1095.45	415.84	14520224.51	2093008.94	39.972759	-109.384615	1168.60	
173.34	3721.73	-1125.15	417.61	14520194.85	2093011.25	39.972678	-109.384609	1197.56	
173.01	3804.42	-1155.06	421.19	14520165.01	2093015.37	39.972596	-109.384596	1227.25	
175.08	3888.08	-1185.25	424.36	14520134.88	2093019.08	39.972513	-109.384585	1257.09	
172.08	3972.91	-1211.95	427.29	14520108.24	2093022.50	39.972439	-109.384574	1283.51	
175.60	4058.64	-1235.73	429.86	14520084.51	2093025.50	39.972374	-109.384565	1307.04	
179.48	4145.16	-1260.47	430.90	14520059.79	2093026.98	39.972306	-109.384561	1331.04	
180.94	4229.17	-1286.65	430.79	14520033.61	2093027.35	39.972234	-109.384562	1356.10	
181.64	4313.05	-1313.27	430.19	14520006.99	2093027.23	39.972161	-109.384564	1381.44	
179.92	4398.51	-1338.08	429.83	14519982.17	2093027.33	39.972093	-109.384565	1405.12	
178.41	4485.77	-1360.09	430.13	14519960.17	2093028.02	39.972033	-109.384564	1426.29	
183.62	4570.85	-1378.27	429.88	14519941.99	2093028.09	39.971983	-109.384565	1443.64	
185.33	4657.48	-1393.64	428.70	14519926.60	2093027.19	39.971941	-109.384569	1458.03	
183.49	4744.65	-1405.61	427.74	14519914.62	2093026.46	39.971908	-109.384573	1469.23	
191.11	4830.20	-1414.34	426.69	14519905.87	2093025.57	39.971884	-109.384576	1477.30	
187.56	4916.95	-1420.77	425.60	14519899.42	2093024.58	39.971866	-109.384580	1483.14	
162.08	5005.85	-1424.78	425.69	14519895.41	2093024.75	39.971855	-109.384580	1487.02	
227.62	5093.83	-1426.64	425.60	14519893.55	2093024.70	39.971850	-109.384580	1488.77	
314.92	5180.82	-1426.30	424.25	14519893.87	2093023.34	39.971851	-109.384585	1488.06	
299.00	5268.79	-1425.00	422.57	14519895.14	2093021.64	39.971854	-109.384591	1486.33	
318.86	5357.74	-1423.07	420.45	14519897.02	2093019.48	39.971860	-109.384599	1483.88	
316.16	5446.68	-1420.68	418.28	14519899.38	2093017.26	39.971866	-109.384606	1480.96	
303.11	5534.65	-1419.23	416.60	14519900.79	2093015.56	39.971870	-109.384612	1479.10	
299.41	5621.64	-1418.40	415.23	14519901.61	2093014.18	39.971873	-109.384617	1477.91	
308.83	5707.63	-1417.58	414.04	14519902.40	2093012.98	39.971875	-109.384622	1476.79	
299.20	5795.62	-1416.79	412.90	14519903.17	2093011.82	39.971877	-109.384626	1475.70	
321.25	5885.61	-1416.25	412.17	14519903.69	2093011.08	39.971878	-109.384628	1474.98	
5.82	5972.60	-1415.01	412.09	14519904.94	2093010.98	39.971882	-109.384628	1473.76	
88.8	6063.58	-1412.98	412.35	14519906.96	2093011.20	39.971887	-109.384628	1471.90	
5.97	6152.56	-1411.37	412.57	14519908.58	2093011.39	39.971892	-109.384627	1470.41	
18.28	6241.56	-1410.25	412.78	14519909.70	2093011.58	39.971895	-109.384626	1469.41	
78.35	6329.55	-1409.71	413.46	14519910.26	2093012.25	39.971896	-109.384624	1469.08	
111.01	6417.55	-1409.69	414.21	14519910.30	2093013.00	39.971897	-109.384621	1469.27	
159.67	6504.55	-1410.22	414.59	14519909.77	2093013.39	39.971895	-109.384620	1469.88	
337.83	6592.54	-1410.39	414.64	14519909.60	2093013.44	39.971895	-109.384619	1470.06	
222.94	6681.54	-1410.22	414.41	14519909.77	2093013.21	39.971895	-109.384620	1469.84	
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Survey Points (Relative to	centre, TVD relative to Drill Floor)	Drill Floor )								
ME Inc (US ft) (°)	(°)	TVD (US ft)	N.Offset (US.ft.)	F.Offset (US ft)	Northing (US ft)	≣asting (US ft)	Latitude (°)	Longitude (°)	VS (US ft)	Comment
7132.00 0.46	128.55	6858.54	-1411.49	414.75	14519908.51	2093013.57	39.971892	-109.384619	1471.15	
7221.00 1.09	129.05	6947.53	-1412.24	415.68	14519907.77	2093014.52	39.971890	-109.384616	1472.14	
7311.00 0.80		7037.52	-1412.16	416.40	14519907.87	2093015.23	39.971890	-109.384613	1472.26	
7397.00 0.93	1.85	7123.51	-1410.86	416.46	14519909.16	2093015.27	39.971893	-109.384613	1471.04	
7486.00 0.62	349.22	7212.50	-1409.66	416.40	14519910.36	2093015.18	39.971897	-109.384613	1469.87	
7575.00 0.26	26 10.75	7301.50	-1408.99	416.34	14519911.03	2093015.12	39.971898	-109.384613	1469.21	
7664.00 0.29	324.24	7390.50	-1408.61	416.25	14519911.41	2093015.02	39.971899	-109.384614	1468.82	
7753.00 0.20	20 272.15	7479.50	-1408.42	415.96	14519911.59	2093014.73	39.971900	-109.384615	1468.56	
7841.00 0.29	29 241.92	7567.50	-1408.52	415.61	14519911.49	2093014.38	39.971900	-109.384616	1468.55	
7930.00	11 153.78	7656.50	-1408.71	415.45	14519911.30	2093014.22	39.971899	-109.384616	1468.68	
8017.00 0.38	38 145.85	7743.50	-1409.02	415.65	14519910.99	2093014.43	39.971898	-109.384616	1469.04	
8106.00 0.60	50 155.73	7832.50	-1409.69	416.01	14519910.33	2093014.80	39.971897	-109.384615	1469.78	
8194.00 0.71	159.09	7920.49	-1410.62	416.39	14519909.41	2093015.20	39.971894	-109.384613	1470.78	
8283.00 0.96	155.96	8009.48	-1411.81	416.89	14519908.22	2093015.72	39.971891	-109.384611	1472.07	
8372.00 0.99	153.91	8098.47	-1413.18	417.53	14519906.86	2093016.39	39.971887	-109.384609	1473.57	
8459.00 0.84	34 153.18	8185.46	-1414.43	418.15	14519905.63	2093017.03	39.971884	-109.384607	1474.94	
8724.00 1.08	155.27	8450.42	-1418.43	420.07	14519901.66	2093019.02	39.971873	-109.384600	1479.32	LAST WFT MWD SURVEY
8774.00 1.08	155.27	8500.41	-1419.29	420.47	14519900.81	2093019.43	39.971870	-109.384599	1480.26	PROJECTION TC TD

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ation Points (Relative to centre, TVD relative to Drill Floor)		
Name	MD (US ft)	TVD (US ft)
GREEN RIVER	1075.45	1067.00
BIRDS NEST	1324.08	1304.00
MAHOGANY MARKER	1837.91	1776.00
WASATCH	4322.87	4072.00
MESAVERDE	6531.44	6258.00
SEGO	8714.58	8441.00

Sundry Number: 50434 API Well Number: 43047523670000

	STATE OF UTAH			FORM 9
ı	DEPARTMENT OF NATURAL RESOURGE DIVISION OF OIL, GAS, AND MIR			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-011336
SUNDR	Y NOTICES AND REPORTS	ON W	ELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 1022-104BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			<b>9. API NUMBER:</b> 43047523670000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021		NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 100ATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1838 FSL 2234 FEL				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Merio	idian: S		STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATU	JRE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE	ALTER	CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANG	GE TUBING	CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS	🗆 сомм	IINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACT	TURE TREAT	☐ NEW CONSTRUCTION
4/10/2014	OPERATOR CHANGE	PLUG	AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME		AMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION		RACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR		OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF		STATUS EXTENSION	APD EXTENSION
Report Date:		□ SITA:	STATUS EXTENSION	
	WILDCAT WELL DETERMINATION	<b>▼</b> OTHER	R 	OTHER: WELLBORE CLEANOUT
THE OPE WORKOVER/WELLB	COMPLETED OPERATIONS. Clearly show RATOR HAS COMPLETED THI ORE CLEANOUT-BACKSIDE B  I. SEE ATTACHED OPERATIONS.	E FOLL BRIDGE	OWING ON THE SUBJECT	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 29, 2014
NAME (DI FACE DOUT)	BUONE NUMBER	DED   T	rı c	
NAME (PLEASE PRINT) Doreen Green	<b>PHONE NUME</b> 435 781-9758		<b>FLE</b> egulatory Analyst II	
SIGNATURE N/A			ATE /29/2014	

				U	S ROC	KIES RE	EGION	
				Opera	tion S	umma	ry Report	
Well: NBU 1022	2-104BS BLACK						Spud Date: 9/2	25/2012
Project: UTAH-U	JINTAH		Site: NBI	J 1022-01	J PAD			Rig Name No: SWABBCO 8/8
Event: WELL W	ORK EXPENSE		Start Dat	e: 4/1/201	14			End Date: 4/10/2014
Active Datum: F Level)	RKB @5,092.00usft (a	bove Mean Se	ea	UWI: N	W/SE/0/1	0/S/22/E/1	/0/0/26/PM/S/18	338/E/0/2234/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/1/2014	7:00 - 11:00	4.00	MAINT	35		Р		Rih w broach 8075 tubing clean, rih w jdc tool with Pcs tubing stop and latch down bs and set @ 8068 sheared off, Rih w jdc tool 8068 latched and hit with spangs 3 times and pooh w latched down bs and tubing stop due to rig moving onto well tomorrow.
4/2/2014	12:30 - 14:30	2.00	MAINT	30	G	Р		ROAD RIG F/ NBU 1022-214BS TO NBU 1022-104BS
	14:30 - 18:00	3.50	MAINT	30	Α	Р		MIRU, BLEW TBG DWN, CONTROL TBG W/ 10 BBLS, ND WH, PUMP 30 BBLS DWN CSG, CSG PRESSURE UP TO 800 PSI, BLEED CSG DWN, REMOVE TBG HANGER, TBG STUCK, NU BOP'S, WORKED STUCK TBG, LEFT TBG IN TENSION, SWI, SDFN, LOCK RAMS.
4/3/2014	7:00 - 7:15	0.25	MAINT	48		Р		HSM, REVIEW WIRELINE SAFETY
	7:15 - 9:00	1.75	MAINT	31	В	Р		SICP. 250 PSI. SITP. 400 PSI. BLEW TBG DWN, CONTROL TBG W/ 10 BBLS, WORKED STUCK TBG 60K, NO MOVEMENT
	9:00 - 11:15	2.25	MAINT	34	Α	Р		RU CUTTERS, RIH 1-1/2 FREE POINT TOOL TO 5500' 100% FREE, 5530' STUCK, 5595' STUCK, 5755' STUCK, POOH FREE POINT TOOL, RIH 1.70 GAUGE RING TO 8100', POOH TOOL.
	11:15 - 18:00	6.75	MAINT	34	I	Р		RIH 1.71 TBG CIBP & SET @ 8090', POOH TOOL, RIH STUCK PIPE LOG, LOCATED BRIDGE @ 5518', POOH TOOL, PRESSURE TBG TO 1000 PSI. & PUNCHER TBG @ 5518', POOH TOOL, WORKED STUCK TBG WHILE PUMPING DWN TBG, NO MOVEMENT, RD CUTTERS, DROP & PUMP 3 BIO SOLUBLE BALLS SEALERS DWN, NO PRESSURE INCREASE, WORKING STUCK TBG, GAIN 3 INCHES, LEFT TBG IN COMPRESSION, SWI, SDFN, LOCK RAMS.
4/4/2014	7:00 - 7:15	0.25	MAINT	48		Р		HSM, REVIEW PUMPING HCL ACID, CHECK ALL MONITOR , H2S
	7:15 - 7:45	0.50	MAINT	30	E	Р		SICP. 6 PSI. SITP. 970 PSI. BLEW TBG TO TNK, CONTROL TBG W/ 30 BBLS.
	7:45 - 8:15	0.50	MAINT	31	В	Р		WORKED STUCK TBG F/ 65K TO 80K
	8:15 - 8:45	0.50	MAINT	40	В	Р		RU NALCO, PUMP 70 GALS 30% HCL DWN TBG, FLUSH W/ 2 BBLS, PUMP 20 GALS SAVENGER DWN, FLUSH W/ 2 BBLS, PUMP 70 GALS 30% HCL DWN CSG, FLUSH W/ 2 BBLS & SCAVENGER DWN, FLUSH W/ 2 BBLS, RD NALCO.
	8:45 - 10:45	2.00	MAINT	31	В	Р		WORKED STUCK TBG TO 80K FOR 2 HRS. NO MOVEMENT.
	10:45 - 13:00	2.25	MAINT	34	Н	Р		RU CUTTERS WIRELINE SERVICE, RIH W/ 1.860 GAS WELL TBG CUTTER & CUT TBG @ 5505', POOH TOOLS, RD CUTTERS.
	13:00 - 16:30	3.50	MAINT	45	Α	Р		RU SCAN TECH, POOH & SCAN 173 JTS. LD CUT JOINT, RD SCAN TECH, SWI, SDFWE, LOCK RAMS.
4/7/2014	7:00 - 7:15	0.25	MAINT	48		Р		HSM, REVIEW W/O FISH & AIR FOAM UNIT.
	7:15 - 8:00	0.75	MAINT	30	E	Р		SICP. 1030 PSI. BLEW CSG DWN, CONTROL TBG W/ 30 BBLS,

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<u> Sundry Number: 50434 API Well Number: 43047523670000</u> US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-104BS BLACK Spud Date: 9/25/2012 Project: UTAH-UINTAH Site: NBU 1022-01J PAD Rig Name No: SWABBCO 8/8 Event: WELL WORK EXPENSE End Date: 4/10/2014 Start Date: 4/1/2014 UWI: NW/SE/0/10/S/22/E/1/0/0/26/PM/S/1838/E/0/2234/0/0 Active Datum: RKB @5,092.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 8:00 - 9:30 1.50 **MAINT** 31 Ρ M/U 3-7/8" SHOE, T-DOG, 1JNT W.P. TOP SUB. BUMPER SUB, JAR, XO, 4-D.C., XO, INTENSIFIER, XO, RIH 168 JTS 2-3/8" TBG, TAG FISH TOP @ 9:30 - 10:00 0.50 MAINT 47 Α Р NU PWR SWVL, INSTALL TSF, RU GROSS FOAM. 10:00 - 10:45 0.75 **MAINT** 31 Н Ρ EST CIRC IN 45 MINS. 10:45 - 14:00 3.25 MAINT D Р W/O FISH F/ 5521' TO 5538' (17') HARD DRLG BRAIUM SCALE, FELL THROUGH, CIRC WELL CLEAN, KILL TBG, LD PWR SWVL, POOH 2 JTS. REMOVE TSF. 14:00 - 14:30 **MAINT** 0.50 31 Ρ RIH 18 JTS.TBG TO BTM, FOUND FISH TOP @ 6091', TRY TO LATCH ON FISH, WORKED TBG, T-DOG WOULD NOT LATCH. MAINT 14:30 - 17:30 3.00 1 Ρ POOH 186 JTS.TBG , LD BHA, NO FISH, SWI, SDFN. LOCK RAMS 7:00 - 7:15 4/8/2014 0.25 MAINT Р 48 HSM, REVIEW FISHING 7:15 - 9:30 2.25 **MAINT** 31 SICP. 1007 PSI.BLEW CSG DWN, CONTROL CSG W/ 40 BBLS, PU 3-3/4"OVERSHOT & BHA, RIH W/ TBG, LATCH ON FISH, 9:30 - 14:30 Ρ 5.00 MAINT 31 POOH 184 JTS, LD BHA, LD 84 JTS. JUNK TBG ON TRAILER, 14:30 - 17:30 3.00 MAINT 31 Р PU 3-7/8" LONG NECK SLAUGH MILL, RIH 84 JTS. 2-3/8" J-55 YELLOW BAND TBG F/ TRAILER, & 66 JTS. J-55 TBG F/ DERRICK, EOT @ 4790', SWI, SDFN, LOCK RAMS. 4/9/2014 7:00 - 7:15 0.25 **MAINT** 48 HSM, REVIEW FOAM UNIT SAFETY 7:15 - 8:15 1.00 MAINT 31 1 Ρ SICP. 1000 PSI. SITP. 1000 PSI. BLEW TBG DWN, CONTROL TBG W/ 20 BBLS, FINISH RIH TBG, TAG SCALE @ 8178' BTM PERF @ 8565',(387') PERFS COVERED UP. 8:15 - 8:45 0.50 **MAINT** 47 Ρ NU PWR SWVL, RU GROSS FOAM, INSTALL TSF. Α 8:45 - 10:15 MAINT 1.50 31 Н Р EST CIRC W/ FOAM UNIT IN 90 MINS.

10:15 - 13:15

13:15 - 13:50

13:50 - 18:00

- 7:15

7:00

4/10/2014

3.00

0.58

4.17

0.25

**MAINT** 

MAINT

MAINT

MAINT

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C/O F 8178' TO 8282' (104') FELL THROUGH, RIH TBG & TAG @ 8410' C/O F/ 8410' TO 8668' (258') TAG OLD POBS, CIRC WELL CLEAN, HAVE (103')

KILL TBG, RD PWR SWVL, RD GROSS FOAM.

POOH & LD 17 JTS. 2-3/8" L-80 TBG ON TRAILER, REMOVE TSF, POOH 256 JTS. TBG, LD 3-7/8" LONG NECK SLAUGH MILL, PU 1.875 XN NOTCH, RIH 120 JTS. EOT @ 3836', SWI, SDFN, LOCK RAMS.

RATHOLE.

JSA-SAFETY MEETING

Sundry	Number:	50434 7	APT We	<u> </u>	Iumbe	r: 4	30475236	70000	
				U	S ROC	KIES RI	EGION		
				Opera	tion S	umma	ry Report		
Well: NBU 1022-	·104BS BLACK						Spud Date: 9/25	5/2012	
Project: UTAH-U	INTAH		Site: NBL	1022-01	J PAD			Rig Name No: SWABBC	O 8/8
Event: WELL WO	ORK EXPENSE		Start Date	e: 4/1/201	4			End Date: 4/10/2014	
Active Datum: RI Level)	KB @5,092.00usft (al	oove Mean Se	а	UWI: N\	N/SE/0/1	0/S/22/E/ <sup>-</sup>	1/0/0/26/PM/S/183	88/E/0/2234/0/0	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	0	peration
	7:15 - 12:00	4.75	MAINT	31	I	Р		IN, R/D UNIT MOVE TO 2. TO PRODUCTION,  KB HANGER 106 JTS 2 3/8" L-80 TBG	DLE, LAND TBG W/ ", RIH 106 JTS L-80 AND DPS, N/U WH, SHUT WELL A PAD, TURN WELL OVER  = 15.00' = .83' = 3368.53'
								1- 2 3/8" L-80 PUP JT 150 JTS 2 3/8" J-55 TBG 1- XN- NIPPLE 1.8785" EOT	= 6.15' = 4764.51' = 1.05' = 8156.07'

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RECEIVED: Apr. 29, 2014